

CHAPTER 3

Planning for Instruction

Key Skills and Knowledge that all educators need to increase the participation and performance of students with diverse learning needs in standards-based environments.

S T A N D A R D S

- The teacher uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement, and self-motivation.
- Teachers understand how a disability in one area (e.g., physical, cognitive, social/emotional: can impact learning and development in other areas.)
- Teachers have knowledge of when and how to develop, structure and implement accommodations, modifications or adaptations to provide access to the general curriculum.
- All teachers develop positive strategies for coping with frustrations in the learning environment.

PLANNING FOR INSTRUCTION

QUICK VIEW

3

FOCUS

PLANNING FOR INSTRUCTION

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LINKING TO THE CORE CURRICULUM

INSTRUCTIONAL MODEL



COURSE OF STUDY ■ PREREQUISITE SKILLS ■ EXTENDED LEARNING OPPORTUNITIES



PLANNING AND SCHEDULING TIMELINES

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QUICK VIEW

STRATEGIES *(continued)*

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Standards-based curricula and standardized assessment for all students has changed the focus of educational reform. The goal is to help students make progress in the general curriculum.

- For students with diverse needs, instructional goals should be rigorous and relevant, reflecting important learning processes as well as the critical and functional skills that may be essential to a student's future.
- Planning should begin with the assumption that every student has goals set in the General Education curriculum.
- The teacher must understand the units of instruction for a particular grade level and the long term goals of the curriculum that stress higher order thinking – including manipulating and using information in new ways. This complex understanding of content and the ability to connect school knowledge to the world beyond is evident in the planning and support teachers provide with the General Education curriculum for students with diverse learning needs. Before moving to consider modifying a curricular goal, educators should consider if all possible accommodations, including increasing the opportunity to learn have been made.

Careful planning of content coverage can help ensure that learning will be maximized for all students. Objectives, scope and sequence, curriculum and pacing must be considered when planning, as well as making sure the amount of content covered is appropriate to the skills and abilities of the students .

Because content is based on objectives, it is important to maximize content coverage, especially with diverse learners. All Individualized Education Programs (IEP's) and Limited English Proficiency Programs (LEP's) are based on objectives. These translate through teacher collaboration into relevant methods and materials. All areas of instruction are presented in conjunction with the scope and sequence of instructional objectives. For diverse learners, making reasonable modifications in scope and sequence by focusing on the more essential aspects of the curriculum Course of Study, Prerequisites skills may be helpful in enhancing learning.

The curriculum describes the instructional materials as well as a course of study for each discipline and a scope and sequence with each grade level necessary to build conceptual understanding. Pacing, or the Planning and Scheduling Timeline refers to the rate which teachers and students proceed through the curriculum. One of the most significant problems teachers encounter is adjusting the pace of instruction to diverse learning needs.

- In classes where students have diverse needs, adaptations are needed to ensure that all students receive appropriate opportunities to learn.
- While addressing different needs, focus most on the objectives with the highest priority; increase learning time with teachers, aides, parents, or peers.
- When planning for student learning, consider especially what will be taught, and to what level of proficiency. Knowing what type and level of learning is desired provides implications for instructional planning.

A Process for Making Change in the General Education Curriculum

Standards-Based Instruction

The first step teachers must take to implement standards-based instruction is to become familiar with the Pennsylvania State Standards, Standard Statements and Assessment Anchors. Classroom teachers must then select lessons that address those areas for the larger group of similar learners in their classrooms. Having identified these lessons, using the “picture window” pages or sample lesson pages in the Core Curriculum, the teacher must decide how students experiencing specific learning difficulties can participate in them successfully. Many students with disabilities may be able to participate in activities designed to link to the Core Curriculum Standards and Standard Statements. In other cases, minimal adaptations might be needed to enable students to meet the standards. Figure 1 illustrates a structure of supports and services that will assist the student in accessing the core curriculum. The following questions should be considered:

- Are the instructional demands of the lesson appropriate to the student’s present levels of educational performance and learning characteristics?
- Can the Standard Statements driving this lesson be taught to students with diverse learning needs or must some be adapted?

Making Accommodations and Modifications

In order to determine appropriate accommodations and modifications, the teacher must consider the strengths and needs of the students, including:

- Subjects in which the students show strength
- Potential problem areas for participating students
- Areas in which students need very little assistance
- Areas in which students need substantial support
- Learning Styles that foster achievement

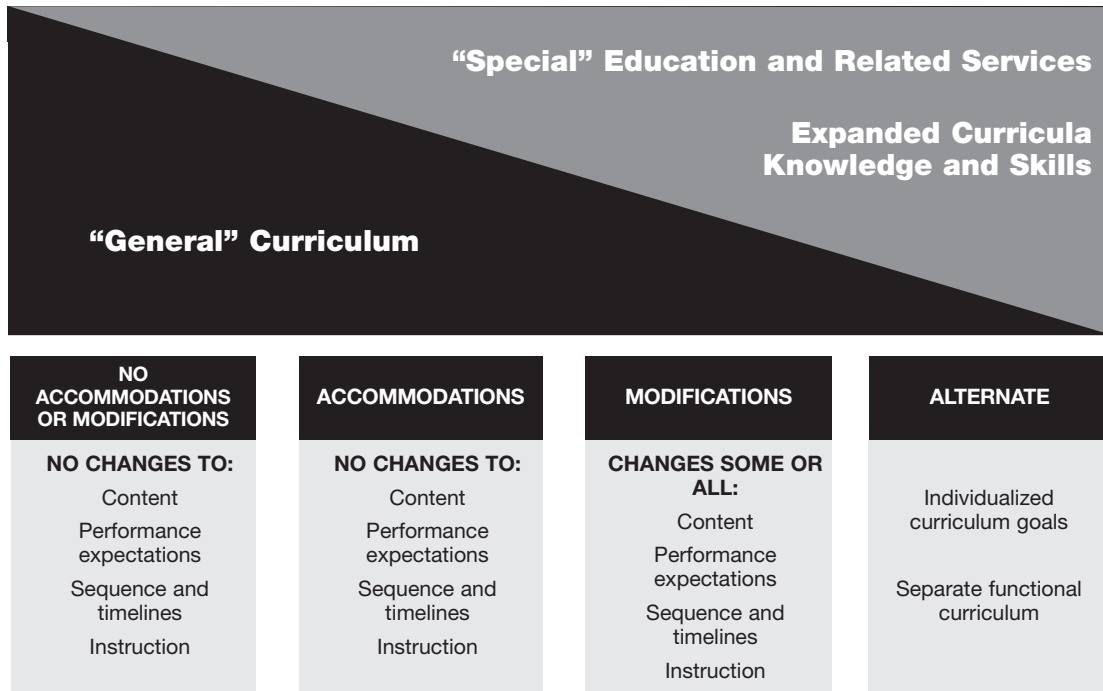


When planning minor or significant changes, the teacher may start by considering instructional strategies that have proven to be effective in teaching students with diverse learning needs. (Examples can be found in the Appendix of the Core Curriculum Guide.)

This Guide will now simply expand on these examples and guide the teacher to best practices for effective instruction once the teacher has considered the following questions:

- Should the presentation of the teaching material include use of visual, auditory, tactile, and/or kinesthetic modalities (multi-sensory approach)?
- Should the instructional grouping be changed to create cooperative groupings, peer partners, or cross-age tutors or a combination of each?
- Should there be some adjustment to the Planning and Scheduling Timeline?
- Can the lesson be connected to the student’s personal and cultural experience?

Figure 1 Accessing the General Education Curriculum



If accommodations or modifications are needed, the teacher will have to consider what kinds of changes must be made. Less intrusive adaptations (minor changes) should be considered first.

Teachers might ask these questions:

- Are changes needed in the format and length of the lesson?
- Must adjustments be made in the time for completing the lesson?
- Should level of difficulty be adjusted?
- What additional supports are needed for the student? Support can involve peer tutoring, paraprofessional support, and assistance by other teachers or ancillary staff. (after school support)
- What methods will be used for motivation and reinforcement?
- Can assignments be adapted, or should alternative assignments be made in order to allow a student to participate successfully?
- Should the teacher preview and review the lesson for a student requiring additional support?
- Is pre-teaching the lesson needed?

More intrusive adaptations (major changes) might be required for students with significant disabilities. With these students, teachers might use the Core Curriculum, adapting it to promote functional life skills. Modified or alternative standards in areas such as career/vocational or functional community skills might be needed for some students with significant disabilities.

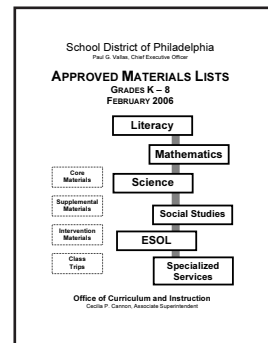
The teacher should ask the following questions when selecting and/or modifying standards of the General Education curriculum for students with significant disabilities:

- Is the content of the standard relevant to the knowledge and skills the student needs for current and future daily living and community adjustment?
- If an alternate standard is selected, does it set high expectations for the student?

The teacher must decide what materials are best suited for students with disabilities. Considerations include: (See the School District of Philadelphia Approved Materials List)

- Textbooks covering the same content but at a lower degree of reading difficulty
- Use of manipulatives to demonstrate content
- Use of advance organizers to facilitate reading comprehension
- Use of computer based instruction or assistive technology
- Use of a Differentiated Instruction method

When deciding on the most appropriate adaptations, teachers have a wide range of options based on students' learning and behavior needs.



Assessment

An important aspect of the process of standards-based instruction is assessment. Teachers must know how to determine if students have mastered the content set forth in the standards. The higher standard of progress in the General Education curriculum requires educators to use a new set of assessment and measurement tools. Educators are thinking differently about the role of assessment in instruction. We look at assessment as a tool to make decisions about student performance. Educators then compare the student's performance to an instructional standard. A few preliminary questions might help in the selection of appropriate assessment tools:

- Should minor changes be made in assessment procedures to accommodate the individual needs of students with disabilities such as oral response, time extension, or reduced number of items?
- Are alternative assessments necessary for some students who are unable to participate in the regular assessment process, even with accommodations? Performance-based assessments, e.g. demonstrations, projects and illustrations are alternative ways of assessing mastery.
- Is progress monitoring of IEP goals, with the use of general outcomes measures, being used to show student progress over time?

Figure 2 Reference Standards

Comparison Point	Norm-Referenced	Criterion-Referenced	Individual-Referenced
Principle use	Screening and eligibility testing	Mastery testing	Monitor progress toward long range goals
Major emphasis	Measure inter-individual differences in achievements	Describe tasks a student can perform in a particular domain	Measure individual growth over time
Interpretation of results	Compare performance to that of other individuals	Compare performance to a clearly defined domain that may be contained in curriculum standards	Compare the actual rate of progress to the expected or desired rate
Content coverage	Covers a broad area of achievement	Focuses on a particular set of learning tasks	Items sampled from within the curriculum but across instructional units (such as "20 passages from level 4.2 of the basal reading series")
Performance standards	The level of performance is determined by a relative position in some known group ("ranks fifth in group")	The level of performance is determined by absolute standards ("has accurately completed 90% of all objectives") or scoring rubric ("scored four on a five-point scale")	The rate of change is calculated and compared to the expected or desired growth

Source: Adapted from Tindal and Marston, 1990

PRINCIPLE 1: Begin with the expectation that all students can learn at high levels

Teachers provide instruction in classrooms where students have a wide range of learning styles, diverse cultural and linguistic backgrounds and varying academic and social skills. Diverse learners require multiple opportunities and options for learning. The expectation is that all of these students will achieve at high levels and maximize their capacity as learners. Planning for instruction begins with the expectation that curriculum provides alternatives to make it accessible and applicable to students, teachers, and parents with different backgrounds, learning styles, abilities, and disabilities in widely varied learning contexts. Instruction for students with unique learning styles offers appropriate and effective methods and strategies that ensure maximum opportunities to achieve established standards and goals. Teaching goals and teacher expectations for student performance and success is stated clearly and understood by the student in order for effective instruction to occur.

PRINCIPLE 2: Determine how to teach**(Navigating the Core Curriculum, developing grouping structures)**

All teachers must reach a level of comfort and competency about presenting the core curriculum to students with diverse learning needs. For students with disabilities this must be accomplished in the least restrictive environment. Most students can participate in the general curriculum with minor adaptations, accommodations and modifications.

The best way to decide how to teach is to teach. Effective teachers first set instructional goals aligned with performance standards. Next they identify and try alternative methods and materials until they find an approach or combination of approaches that works best in moving students toward the accomplishment of instructional goals. In making decisions about how to teach, effective teachers make an “educated guess” about the kinds of instructional grouping structures and pacing alternatives that will work best for students with learning difficulties, then try them and monitor the results before planning instruction. Adaptations may be required in the areas of content, classroom setting, teaching strategies, and assessment.

Adapting the Core Curriculum involves:

- Adjusting the amount of information to be taught according to individual needs
- Changing the level of difficulty of materials to facilitate learning
- Modifying the lesson format for different students.

Consider how changes in content reduce the student’s opportunity to learn certain knowledge and how that may impact assessment performances.

The Instructional Setting may be adjusted by:

- Changing seating arrangements
- Placing students in large or small groups
- Adjusting the social/emotional climate
- Changing the daily schedule
- Providing technological and individual supports

Adaptations in teaching strategies include:

- Changing the way material is presented (using prior knowledge, multisensory approach, hands-on activities, demonstrations, graphic organizers, use of technology)
- Teaching cognitive strategies that enable students to become independent learners

PRINCIPLE 3: Developing Data Driven Decisions for Instruction, Methods, Materials, Pacing and Monitoring

Careful planning of content coverage can help ensure that learning will be maximized for all students. Objectives, scope and sequence, curriculum and pacing must be considered when planning as well as making sure the amount of content covered is appropriate to the preskills and abilities of the students.

Because content is based on objectives, it is important to:

- Maximize content coverage, especially with diverse learners because all Individualized Education Plans and Limited English Proficiency goals are based on learning standards and objectives.

These translate through teacher collaboration into relevant teaching methods and materials.

- All areas of instruction are presented in conjunction with the scope and sequence of instructional objectives.

For diverse learners, making reasonable modifications in scope and sequence by focusing on the more essential aspects of the curriculum (Course of Study, Prerequisites skills) may be helpful in enhancing learning. (FIGURE 3)

The curriculum includes:

- The instructional materials
- Prerequisite Skills
- A course of study for each discipline
- A scope and sequence with each grade level necessary to build conceptual understanding.
- Pacing or the Planning and Scheduling Timeline. (This refers to the rate which teachers and students proceed through the curriculum.)

One of the most significant problems teachers encounter is adjusting the pace of instruction to diverse learning needs.

- In classes where students have diverse needs, adaptations are needed to ensure that all students receive appropriate opportunities to learn.

While addressing different needs, focus most on:

- The objectives with the highest priority; increase learning time with teachers, aides, parents, or peers.

When planning for students learning, know specifically:

- What will be taught, and to what level of proficiency.

Knowing what types and levels of learning are desired provides implications for instructional planning.

Assessment modifications require:

- Determining how to assess what the student knows and minimizing the effect of the disability.
- Continuous monitoring of the student's understanding and progress in order to make curriculum adjustments and accommodations.

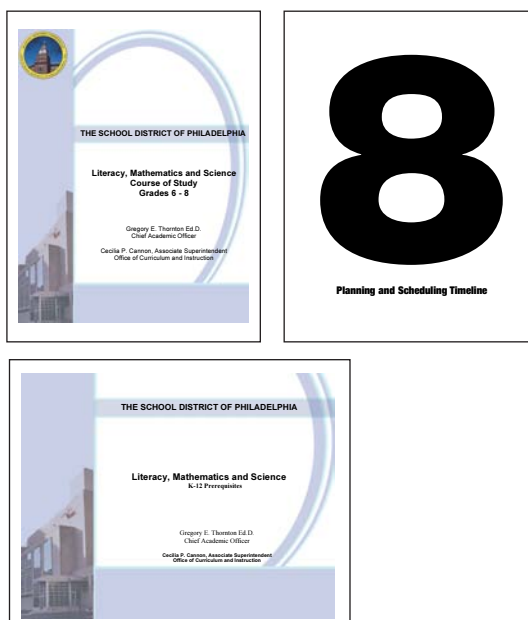
Materials and methods for teaching students with diverse learning needs are as different as the students themselves. What works for one may not work for another. Developing adaptations to the curriculum that enhance the learning of all students with diverse learning needs must take into account individual differences.

This requires the ability to:

- Be flexible
- Be creative
- Be able to evaluate progress

When students are not making progress using one technique or strategy the teachers must be able to shift to another. In planning for instruction, making the appropriate adjustments to the curriculum contributes to the success of all students experiencing learning difficulties.

Figure 3



Questions for determining appropriate accommodations and modifications.

- Will we teach the same content but lower the performance expectation?
- Will we teach less content?
- Are the instructional demands of the lesson appropriate to the student's present levels of academic performance and learning style?
- Can all of the concepts in the lesson be taught or must some be adapted?
- What is the student's area of strength?
- What are potential problem areas for students?
- What area does the student require the most support or very little assistance?

Questions for determining instructional strategies.

- Should the presentation of material be multisensory?
- Should the instructional grouping be changed to create co-operative groups, peer partners or tutors?
- Should the unit be developed as an integrated curriculum?
- Can the lesson be connected to the student's personal, cultural experiences?
- Should the lesson be interactive involving student's active participation (reciprocal teaching interaction)?
- Can the lesson be presented using thematic units, semantic webs, Venn diagrams or other connecting and illustrating concepts?

Questions to consider what kinds of changes to the curriculum must be made.

- Are changes needed in the format and length of the lesson?
- Must adjustments to time be made for completing the lesson?
- Should the level of difficulty be adjusted?
- Should the classroom arrangement meet specific student needs, preferential seating, study carrels, or other physical arrangement to reduce distractions?
- What additional support is needed for the student? (Peer tutoring, paraprofessional assistance, assistance by other teachers or staff.)
- What method is needed for motivation and reinforcement?
- Can assignments be adapted, or should alternative assignments be made to allow the student to participate successfully?
- Should materials and lessons be previewed and reviewed for a student requiring additional support?

3**REFLECTIVE PRACTICES****Questions to consider for students with significant needs.**

- Is the content relevant to the knowledge and skills the student needs for current and future daily living and community adjustment?
- If an alternative standard is selected, does it set high expectations for the student?
- Have parents participated in selecting content standards that relate to the student's postschool outcomes?

Questions to consider in using materials.

- Do textbooks cover the same content but at a lower degree of reading difficulty?
- Can manipulatives be used to demonstrate content?
- Can advance organizers be used to facilitate reading comprehension?
- Can computer based instruction or assistive technology be used?

Questions to consider in assessment.

- Can the same assessment procedures be used for students with diverse learning needs as their peers?
- Should minor changes be made in assessment procedures to accommodate the individual needs of the students such as oral response, time extension or reduced number of items?
- Are alternative assessments necessary for students unable to participate in the regular assessment process even with accommodations? (Performance-based assessments, demonstrations, projects and illustrations are alternative ways of assessing mastery.)

What are Accommodations, Adaptations and Modifications?

Teachers should know how to differentiate curricular content from instruction.

Teachers should have a firm understanding of a student's current levels of performance.

Teachers should know the difference between Accommodations and Modifications.

Accommodations Checklist

- No change to the content or performance expectations
- No change in the standards specified for the students
- The accommodations address the diverse learning needs across all subject areas
- Consideration has been made regarding:
 - Presentation of the teaching material: Visual, auditory, tactile or kinesthetic
 - Instructional Grouping
 - Adjustment to Planning and Scheduling Timeline
 - Learning styles that foster achievement
 - Additional supports the student/s may require: Peer tutoring, paraprofessional support, assistive technology
 - What methods will be used for motivation and reinforcement
 - Whether pre-teaching the lesson is needed

Modifications Checklist

- Be aware of what knowledge and skills are being assessed to determine whether the instructional focus on what students will need to do in an assessment is being maintained
- Subject matter needs to be altered
- The performance expected of the student/s is changed
- Keeping the subject matter and essential curricular goals and standards the same but considering changing the materials used in the lesson
- Teacher will design new material and tasks for individual children that mirror the general education curriculum
- Using a textbook or text in the same subject matter but that is below the grade level of the class

Adaptations Checklist

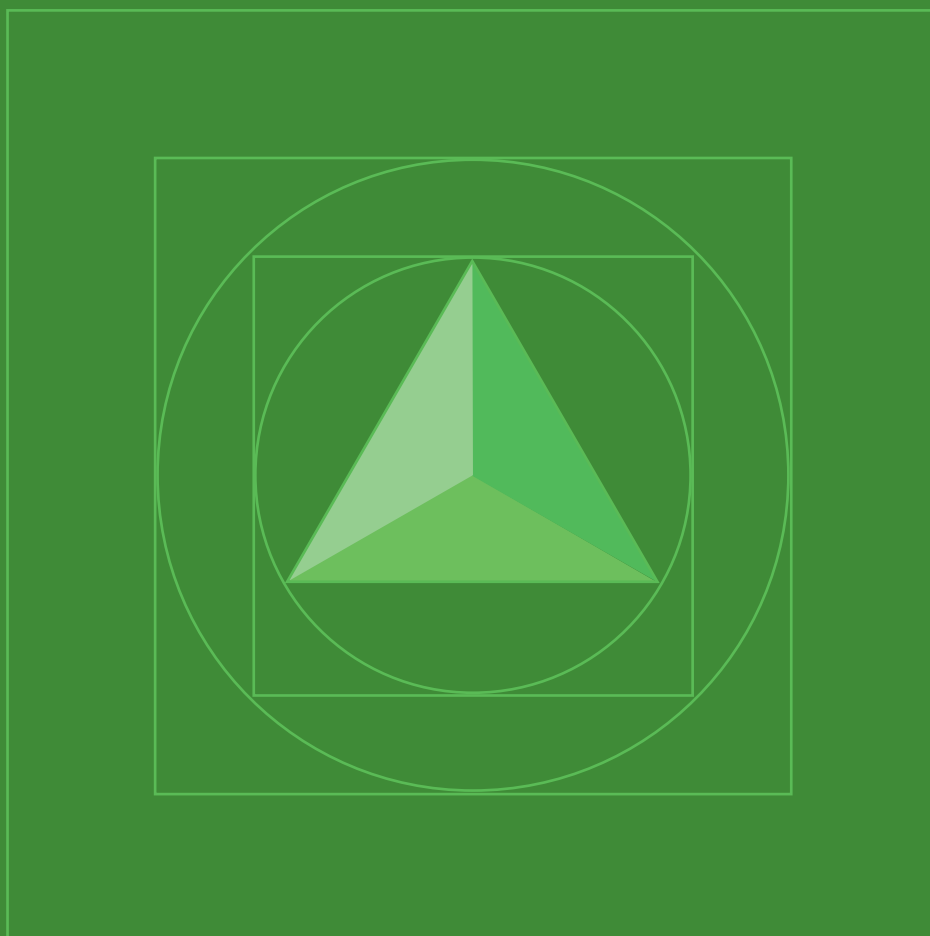
- Subject matter needs to be altered
- The performance expected of the student/s is changed
- Keeping the subject matter and essential curricular goals and standards the same but consider changing the materials used in the lesson

TEACHER TIPS

Most powerful instructional strategies linked to accessing and making progress in the Core Curriculum:

- Identification of similarities and differences
- Taking notes and summarizing
- Reinforcing effort and providing recognition
- Homework and practice

Planning for Instruction

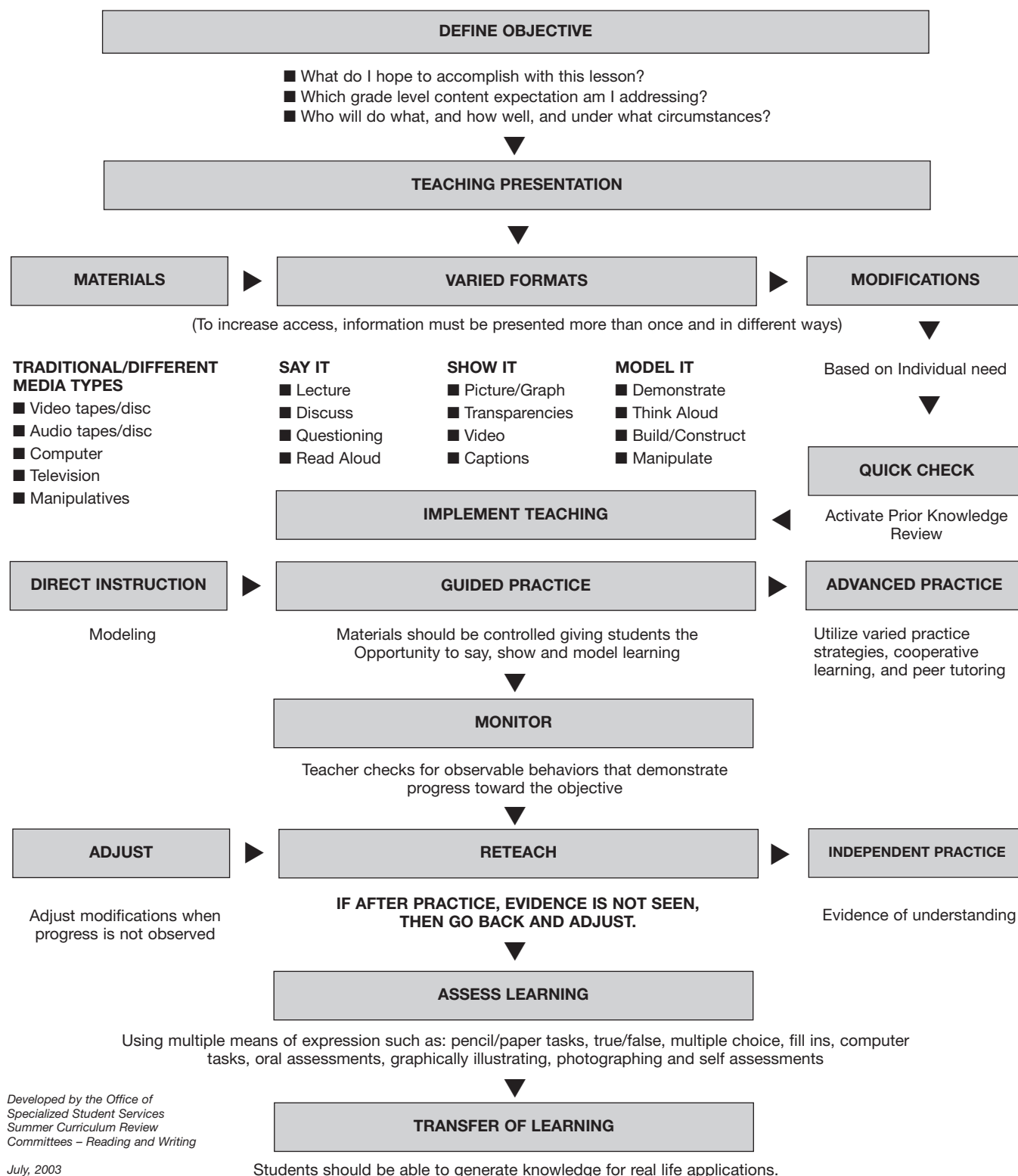


STRATEGIES

RESOURCES • LINKAGES

1

Steps for Planning Instruction



3

PLANNING FOR INSTRUCTION

2

Decision Making Process and The IEP Chart

BEGIN PLANNING WITH CURRENT LEVELS OF FUNCTIONING DISCUSSION

CONSIDER ALL SOURCES OF DATA:
ELIGIBILITY ASSESSMENTS
DOCUMENTED DATA FOR SUCCESS WITH STANDARDS
CURRENT PROGRESS TOWARDS STANDARDS



WHAT DOES THE STUDENT NEED IN ORDER TO MAKE PROGRESS IN THE GENERAL CURRICULUM?



DISCUSSION POINT

What level of participation can this student have in a Standards-based Education?
 (Consider Relevance and Reasonableness)

SAME STANDARD

MODIFIED STANDARD

DIFFERENT CURRICULAR GOALS

STANDARDS WITH NO ACCOMMODATIONS

STANDARDS WITH ACCOMMODATIONS

LIST STANDARDS AND HOW THEY ARE MODIFIED

LIST PERFORMANCE GOALS & OBJECTIVES

Individualize all instruction
 (IEP Goals/Objectives)

Instruction in
 General Education

Full participation in
 state/district assessments

List standards and specific
 accommodations

Instruction with
 accommodations in General
 Education

Individualized skill instruction
 (IEP Goals /Objectives)

Participate in state/
 district assessment with
 accommodations

Different or modified
 curricular goals

Describe supplemental
 services and supports

Individualized skill instruction

Goals/Objectives based on
 modified content standards
 and/or access skills

Document reasons for
 alternate assessments

Participate in state/district
 assessment and/or alternate
 assessments

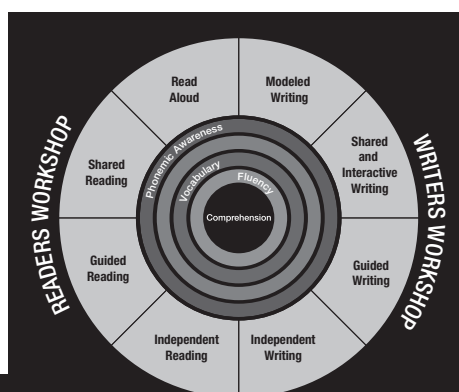
Design Instruction

Document compelling
 reasons for exemption from
 state/district assessments

Describe alternate assessment

5 Easy Steps to Effectively Use the Core Curriculum

Examples for Preparation by Special Education Teachers with Multiple Grade Levels for The Literacy Block



STEP 1

Start with the Instructional Model at the front of the curriculum document. This is the School District of Philadelphia's mandated instructional **framework** through which lessons are taught. Then consult the **Individualized Education Programs** for your Special Education students. This IEP document, mandated by Federal Law, is defined as **a comprehensive statement of the educational needs** of a student with disabilities and the **specially designed instruction** and related services to be employed to meet those needs.

STEP 2

Next look at **A Year at a Glance** to view a snapshot of the content to be converted during the year. Take note of weeks that include PSSA Checkpoints. Also notice all students will take a School District Benchmark Assessment. Use data from PSSA checkpoints, Benchmark tests, and other assessments to plan instruction for the review week (**Revisit, Reteach, Enrich**).

STEP 3

Then look at the **Planning and Scheduling Timeline**. This will tell you what to teach and connects to concepts and skills to the PA Content Performance Descriptors and PA Academic Standards (Standard Statements) which can be used when writing **Goals and Objectives on the IEP**. The page number(s) next to the PA Standard Statement(s) refers you to the appropriate pages in the Core Curriculum. Textual References indicate the appropriate pages in the Teachers Edition of the Core Program Materials. The Planning and Scheduling Timeline also indicates approximately how long to spend on each lesson. In addition, there are technology and other resources as well as sample PSSA items and aligned TerraNova objectives. When working with multiple grades in one classroom, follow the above steps for each Grade level by using Graded Materials that match the Grade Levels of the students in the class:

- Planning what the Focus Skills and Focus Strategies will be for the week across the grades.
- Planning to do "Shared Reading" on multiple levels. (Changing the Grade level on Monday, Tuesday and Wednesday). Reinforcement of this process is done through "taped" passages that students can access when directed. Students will then answer questions based on the Instructional Strategy for the week.

3

PLANNING FOR INSTRUCTION

THE LITERACY BLOCK

Additional Options for Special Education Teachers with multiple grade levels:

STEP 3B

When working with multiple grades in one classroom, follow the above steps for each Grade Level by: (**Using Graded Materials that match the Grade Levels** of the students in the class).

1. Planning to do “**Shared Reading**” for 2 Grades (15 minutes each).
2. Providing Guided Reading Instruction at the Instructional Level.

STEP 3C

When working with multiple grades in one classroom, follow the above steps for each Grade Level by: (Using Graded **Materials that match the Grade Levels** of the students in the class).

- **Taking multiple CC Guides**, reviewing and outlining common threads that can be delivered to the entire Group at “Shared Reading” time.

STEP 3D

When working with multiple grades in one classroom, follow the above steps for each Grade Level by:

- **Using Graded Materials that match the Instructional Levels** of the students in the class.
- **Using the Grade Level Materials** for listening activities, during Guided Reading.

STEP 4

Now, turn in the Core Curriculum to the page listed in the Planning and Scheduling Timeline next to the PA Standard Statement. The left side of this page presents the Content Performance Description(s) with the **verbs** in bold to highlight the expectations/tasks that will enable students to reach proficiency. The largest section includes best practices and cultural perspectives and connections that must be infused in daily lessons.

The right side of the **Core Curriculum** includes supplemental resources, interventions, sample assessments, and extended learning opportunities for English Language Learners. Teachers are reminded to refer to the Individual Education Plan (IEP) for Students with Disabilities. Home and community connections can be found on this page as well.

STEP 5

Finally, go back to the Planning and Scheduling Timeline to find the designated pages in the Core Program Materials Teacher’s Edition. The lessons must be taught in the sequence found in the Planning and Scheduling Timeline to ensure that students will be prepared for PSSA.

MORE LONG-RANGE STRATEGIES

When there is collaboration and coordination between teachers (Special Education and/or Regular Education teachers), supported by school Administration the following are additional options to consider:

- A. Teachers Co-teach. (Each teacher takes a Grade level and students engage in Shared Reading with the teacher teaching their “grade”.)
- B. Special Education students receive the shared reading in the Regular Education class, particularly for the tested grades. (20 Minutes) (The Special Education Teacher will provide support and/or teach a Shared Reading lesson during this time).

4

Improving Student Performance Strategies

The following instructional strategies are researched-based and beneficial in improving students' educational performance. All students are able to benefit from these instructional techniques.

RESPONSE CARDS

Response cards are used to:

- Elicit active response from all students simultaneously
- Demonstrate student understanding of the information taught
- Make informed instructional decisions based on students' responses

GUIDED NOTES

Guided notes are teacher-made handouts that:

- Provide a structured format for students to take notes
- Follow the sequence of the lesson content
- Enable students to capture the information the teacher wants them to learn
- Enhance any instructional delivery method

ERROR CORRECTION

Error correction helps students to:

- Build accuracy
- Acquire new learning
- Access the immediate feedback
- Respond as an individual
- Practice successfully before engaging in independent practice

TIME TRIALS

Time trials enable students to:

- Become fluent with the information learned
- Practice a new skill in order to achieve proficiency
- Engage in systematic repetitions for a short duration over several days
- Make the practice fun
- Gain automaticity with learned information
- Improve student response time

These procedures are easy to implement across curricular areas using materials commonly available.

3

PLANNING FOR INSTRUCTION

Improving Student Performance Using Response Cards

Response cards are used to provide students opportunities for active responses in the practice stage of information acquisition. A question is posed and student holds up a card with their response on it.

RESPONSE CARDS ARE USED TO:

- Elicit active response from all students simultaneously.
- Demonstrate student understanding of the information taught.
- Make informed instructional decisions based on students' responses.

HOW TO USE RESPONSE CARDS:

- Model several question/response trials to give students practice on using the cards.
- Keep the pace lively.
- Provide clear cues when students are to show their response cards.

Students can benefit from watching their peers' responses. This is not cheating – it is learning.

TWO KINDS OF RESPONSE CARDS:

1. Pre-printed cards: These cards have responses printed on them. Students chose the correct card in response to a question posed.

Suggestions:

- Make the words big enough so they are easy to read.
- Make the cards easy to manipulate.
- Have only a few cards. Gradually add cards as students build their skills.

2. Write-on cards: These cards are blank. Students need to write their response on the card before showing it in response to a question posed.

Suggestions:

- Limit responses to one or two words or one number in math class.
- Have extra markers on hand.
- Remove student concern about making spelling errors.

Response cards have been beneficial in improving student performance for all students.

Improving Student Performance Using Guided Notes

Guided notes is a structured format that students use when listening to a lecture, reading from the text, or watching a demonstration. Teachers create the guided notes prior to the lesson.

This procedure helps students to take accurate, effective, and meaningful notes. Note taking then becomes a valuable process since notes become useful for discussion and review for tests.

GUIDED NOTES ARE TEACHER-MADE HANDOUTS THAT:

- Provide a structured format for students to take notes.
- Follow the sequence of the lesson content.
- Enable students to capture the information the teacher wants them to learn.
- Enhance any instructional delivery method.

CONSIDERATIONS FOR GUIDED NOTES:

- Be sure to include the information students are expected to learn.
- Utilize consistent cues to indicate where, when and how much to write.
- Limit the amount students need to write by using a short answer format.
- Computerize the guided notes for easy updating and readability.
- Fade out the use of guided notes to increase students' independent note taking skills.

BENEFITS OF GUIDED NOTES:

- Be sure to include the information students are expected to learn.
- Utilize consistent cues to indicate where, when and how much to write.
- Limit the amount students need to write by using a short answer format.
- Computerize the guided notes for easy updating and readability.
- Fade out the use of guided notes to increase students' independent note taking skills.

Improving Student Performance Using Error Correction

Feedback and error correction during acquisition phase of learning is critical to each student's learning. Measuring the accuracy of the student's response is central to each practice session. The teacher should correct the response, if necessary, and allow the student to respond correctly. Continue practicing until the student can perform the skill reliably.

ERROR CORRECTION PROVIDES FOR:

- Build accuracy.
- Acquire new learning.
- Access the immediate feedback.
- Respond as an individual.
- Practice successfully before engaging in independent practice.

FEEDBACK IS NECESSARY SO THAT:

- Students do not practice errors.
- Teachers can be sure students are learning.
- Instructional adjustments may be made.

SUGGESTIONS FOR USING ERROR CORRECTION AS A STRATEGY:

- Always correct errors before advancing to the next item or problem.
- Provide the correction quickly, in 3-4 seconds.
- Supply the right answer/desired response.
- Have the student repeat the response.
- Always end with the student making a correct response.

BENEFITS OF FEEDBACK AND ERROR CORRECTION:

- Incorporates opportunities for guided practice and active responses.
- Provides direct teacher-to-student interaction.
- Helps to inform instructional design.

Avoid assigning independent practice, seatwork, or homework until the student has achieved proficiency.

From: Heward, W.L. (1997). Four validated instructional strategies. In J. Crandall, J. Jacobson & H. Sloane (eds.), *What Works in Education* (pp. 55-64). Cambridge, MA: Cambridge Center for Behavioral Studies.

Improving Student Performance Using Time Trials

Students need to be accurate and quick in their responses to be considered fluent. After the student has acquired a skill and has demonstrated it accurately, the student should move on to the practice stage where the concentration is on becoming more fluent and automatic in the use of the skill.

This practice procedure can be used across curricular areas. Time trials should be short in duration, followed by a more relaxed activity.

Time trials require the student to respond accurately and at a quick pace.

BENEFITS OF TIME TRIALS ARE:

- Students become fluent with information learned.
- Practice of a new skill is provided.
- * Systematic repetitions are utilized.
- Practice is made a fun activity.
- Automaticity with learned information is gained.
- Student response time is improved.

WHY USE TIME TRIALS:

- Time trials build fluency and automaticity.
- Fluency provides a more complete picture of learning and performance.
- Rate per minute is a more sensitive measure of performance improvement.
- Fluency has critical functional implications in and out of school.
- Fluency encourages improved maintenance and generalization.

GUIDELINES FOR CONDUCTING TIME TRIALS:

- Keep practice time short and frequent.
- Do time trials daily.
- Use time trials only during the practice stage of learning.
- Make time trials fun.
- Encourage each student to beat his or her own score.
- Reassure students not to be afraid to make a mistake.
- Give more problems than anyone can do.
- Follow time trials with a more relaxed activity.
- Keep a record of student progress.
- Reward students for improvement.
- Evaluate the effectiveness of your time trial program.

Key Concepts of Differentiated Instruction

ELEMENTS:

CONTENT: What is taught and how access to the information and ideas that matter is given.

- Texts at varied reading levels.
- Provision of organizers to guide note-taking.
- Use of examples and illustrations based on student interest.
- Present in visual, auditory, and kinesthetic modes.
- Provide materials in the primary language of second language learners.

PROCESS: How students come to understand and “own” the knowledge, skills, and understanding.

- Vary the pacing of student work.
- Use cooperative grouping strategies (e.g., Think-Pair-Share, Jigsaw).
- Develop activities that seek multiple perspectives on topics and issues.
- Highlight critical passages in a text.
- Tiered assignments.

PRODUCT: Student demonstration of what he or she has come to know, understand, and be able to do.

- Provide bookmark Internet sites at different levels of complexity for research sources.
- Develop rubrics for success based on both grade-level expectations and individual student learning needs.
- Teach students how to use a wide range of product formats (e.g., presentation software).

AFFECT: Student linking of thought and feeling in the classroom.

- Modeling respect.
- Help students examine multiple perspectives on important issues.
- Ensure consistently equitable participation of every student.

LEARNING ENVIRONMENT: Classroom function and feeling.

- Rearrange furniture to allow for individual, small-group and whole-group work.
- Availability of supplies and materials (e.g., paint, paper, and pencil).
- Procedures for working at various places in the room and for various tasks.

Differentiated Instruction: Curriculum needs to be based on broad concepts

The challenge with differentiating instruction is translating the belief into action. Teachers can differentiate three aspects of the curriculum: content, process, and products.

Content refers to the concepts, principles and skills teachers want students to learn.

- Remember struggling learners should be taught the same big ideas as their classmates, not given watered down content. The degree of complexity should be adjusted to present the same concepts.
- Teachers need to vary the vehicles by which student's access skills and knowledge.
- Text, lectures, demonstrations, field trips, interviews, websites, as well as providing a student with a more modest capacity with reading buddies, videos, demonstrations and organizers that distill information and make it more accessible.

Process refers to activities that help students make sense of, and come to own, the ideas and skills being taught. Teachers can modify these activities to provide some with more complexity and some with more scaffolding, depending on their readiness skills.

- Step by step directions
- Re-teaching
- Additional modeling
- Process can be varied by student interest and learning preference as well.

Product refers to culminating projects that allow students to demonstrate and extend what they have learned. Students can create different projects based on readiness levels, interests and learning preferences.

- Independent project
- Group product

STRATEGIES

- Cooperative learning
- Multi-age grouping
- Addressing multiple intelligences
- Small group instruction
- Individualized instruction
- Flexible grouping
- Tiered activities

- Teacher keeps the concepts and skills the same for all students but provides routes of access that vary the concepts in terms of complexity, abstractness and open-endedness.
- Using stations, compacting, and agendas (examples can be found in the text, "Strategies for Differentiating Instruction" adapted and condensed from the ASCD book *The Differentiated Classroom: Responding to the Needs of all Learners* by Carol Ann Tomlinson.)

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PLANNING FOR INSTRUCTION

Nearly all educators agree with the goal of differentiated instruction, but teachers may lack strategies for making it happen. Here are some of the many strategies in addition to flexible grouping and tiered activities that teachers can use to avoid lockstep instruction:

Stations. Using stations involves setting up different spots in the classroom where students work on various tasks simultaneously. These stations invite flexible grouping because not all students need to go to all stations all the time.

Compacting. This strategy encourages teachers to assess students before beginning a unit of study or development of a skill. Students who do well on a preassessment do not continue work on what they already know.

Agendas. These are personalized lists of tasks that a student must complete in a specified time, usually two or three weeks. Student agendas throughout a class will have similar and dissimilar elements.

Complex Instruction. This strategy uses challenging materials, open-ended tasks, and small instructional groups. Teachers move among the groups as they work, asking students questions and probing their thinking.

Orbital Studies. These independent investigations, generally lasting three to six weeks, revolve around some facet of the curriculum. Students select their own topics, and they work with the guidance and coaching from the teacher.

Entry Points. This strategy from Howard Gardner proposes student exploration of a given topic through as many as five avenues: narrational (presenting a story), logical-quantitative (using numbers or deduction), foundational (examining philosophy and vocabulary), aesthetic (focusing on sensory features), and experiential (hands-on).

Problem-Based Learning. This strategy places students in the active role of solving problems in much the same way adult professionals perform their jobs.

Choice boards. With this strategy, work assignments are written on cards that are placed in hanging pockets. By asking a student to select a card from a particular row of pockets, the teacher targets work toward student needs yet allows student choice.

4Mat. Teachers who use 4Mat plan instruction for each of four learning preferences over the course of several days on a given topic. Thus, some lessons focus on mastery, some on understanding, some on personal involvement, and some on synthesis. As a result, each learner has a chance to approach the topic through preferred modes and also to strengthen weaker areas.

Small Group Instruction. Use the informal assessment suggestions found throughout the lesson along with the formal assessments provided in each lesson to determine your student's strengths and areas of need. Progress Monitoring of students will allow you to adjust your instruction according to the progress of the student in each area. Use the materials suggested in the core curriculum components to help in supporting or expanding on the instruction found in the lesson.

■ **RETEACH** with those students who show a basic understanding of the lesson but need a bit more practice to solidify their understanding.

■ **Interventions** for use with those students who even after extra practice exhibit a lack of understanding of the lesson concepts.

■ **Use of core curriculum supplemental materials** for use with those students who need language help.

Have students create small groups to do such things as:

- Discuss books during readers workshop or author's chair.
- Draw pictures to make a mural showing their understanding.
- Partner read to develop fluency.

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Differentiated Instruction: Workshop

Workshop is the period of time before, during, or after instruction used for children to engage in independent or collaborative practice material taught in the lesson. Student activities should reinforce, review, challenge, and extend reading and writing instruction. Teachers should use this time to address specific goals and objectives as outlined on the Individual Education Plan (IEP). Make sure every student knows how to use materials, games, and other activities in workshop. Activities must be introduced and demonstrated prior to their use

Teachers will meet individual needs while working with small groups, conferencing, and/or doing informal assessments using a flexible grouping model.

- Teachers will assign the workshop activities to help children learn to work on their own.
- Workshop Areas should be established for material organization. Classrooms should have areas that children visit on a regular or rotating basis.
- If classroom space is limited, teachers may place materials on a bookshelf, in labeled boxes, or plastic bins.

WORKSHOP AREAS FOCUSING ON LITERACY

Writing
Listening

Computer
Reading Fluency

Research and Investigation
Games Activities

ORGANIZING MATERIALS**OPTION 1:**

A bookcase or shelf where materials are accessible and color-coded.

Color code activities and the area in which they belong:

Writing-Blue

Computers-Yellow

Research-Pink

Listening-Green

FluencyOrange

OPTION 2:

Bins, tubs, or boxes stocked with a variety of materials for use during workshop.

May be stored anywhere and taken to each group for workshop.

- Writing Supplies
- Activities
- Theme related books
- Cross curricular, activities photocopied and mounted

Materials may Include:

READING BIN	WRITING BIN	FLUENCY BIN
Books (informative and narrative)	Pens/Pencils	Timer
Small pack of sound/spelling cards	Crayons/Markers/Graphic	Pre-Decodable Text
Vocabulary Words	Organizers/Writing topics	Decodable Text
Inquiry Journals	Writing Folders	Progress Monitoring Probes

3**PLANNING FOR INSTRUCTION****Differentiated Instruction****Workshop activities should include:**

TEACHERS ROLE
Establish and post rules • MUST DO • MAY DO
Explain and model workshop activities
Preteach
Reteach
Provide intervention
Challenge students
Listen to students read
Monitor fluency
Observe and confer with students
Organize materials
Plan workshop activities that support IEP goals and objectives

STUDENT ACTIVITIES
Work independently or in small groups on activities related to unit theme/story
Vocabulary word practice
Working on writing in progress
Add to writing journals
Work on inquiry/investigation
Using Listening Library audiocassettes
Work on graphic organizers, work book pages, incomplete assignments
Read precodables and/or decodables
Partner Read; fluency check
Utilize hands-on materials in workshop areas to enhance learning
Computer activities

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Detroit Public Schools*

Differentiation

What is Differentiated Instruction?

Differentiated instruction, also called differentiation, is a process through which teachers enhance learning by matching student characteristics to instruction and assessment. Differentiated instruction allows all students to access the same classroom curriculum by providing entry points, learning tasks, and outcomes that are tailored to students' needs (Hall, Strangman, & Meyer, 2003). Differentiated instruction is not a single strategy, but rather an approach to instruction that incorporates a variety of strategies.

Teachers can differentiate content, process, and/or product for students (Tomlinson, 1999). Differentiation of content refers to a change in the material being learned by a student. For example, if the classroom objective is for all students to re-tell a story some students may learn to re-state the beginning, middle, and end, while others may learn to incorporate character's points of view into the re-telling. Differentiation of process refers to the way in which a student accesses material. One student may explore a learning center, while another student collects information from the web. Differentiation of product refers to the way in which a student shows what he or she has learned. For example, to demonstrate understanding of a non-fiction article, some students may create a graphic organizer, while others discuss the main concepts in a small group.

When teachers differentiate, they do so in response to a student's readiness, interest, and/or learning profile. Readiness refers to the skill level and background knowledge of the child. Interest refers to topics that the student may want to explore or that will motivate the student. This can include interests relevant to the content area as well as outside interests of the student. Finally, a student's learning profile includes learning style (i.e., a visual, auditory, tactile, or kinesthetic learner), grouping preferences (i.e., individual, small group, or large group), and environmental preferences (i.e., lots of space or a quiet area to work). A teacher may differentiate based on any one of these factors or any combination of factors (Tomlinson, 1999).

How Is it Implemented?

Implementation looks different for each student and each assignment. Before beginning instruction, teachers should do three things:

1. Use diagnostic assessments to determine student readiness. These assessments can be formal or informal. Teachers can give pre-tests, question students about their background knowledge, or use KWL charts (charts that ask students to identify what they already Know, what they want to know, and what they have learned about a topic).
2. Determine student interest. This can be done by using interest inventories and/or including students in the planning process. Teachers can ask students to tell them what specific interests they have in a particular topic, and then teachers can try to incorporate these interests into their lessons.
3. Identify student learning styles and environmental preferences. Learning styles can be measured using learning style inventories. Teachers can also get information about student learning styles by asking students how they learn best and by observing student activities. Identifying environmental preferences includes determining whether students work best in large or small groups and what environmental factors might contribute to or inhibit student learning. For example, a student might need to be free from distraction or have extra lighting while he or she works.

3

PLANNING FOR INSTRUCTION

Teachers incorporate different instructional strategies based on the assessed needs of their students. Throughout a unit of study, teachers should assess students on a regular basis. This assessment can be formal, but is often informal and can include taking anecdotal notes on student progress, examining students' work, and asking the student questions about his or her understanding of the topic. The results of the assessment could then be used to drive further instruction.

What Does it Look Like for Reading?

Differentiation strategies applied to reading can be designed to help students learn a range of skills including, phonics, comprehension, fluency, word prediction, and story prediction. The chart below offers a variety of strategies that can be used.

Strategy	Focus of Differentiation	DEFINITION	EXAMPLE
Tiered Assignments	Readiness	Tiered assignments are designed to instruct students on essential skills that are provided at different levels of complexity, abstractness, and open-endedness. The curricular content and objective(s) are the same, but the process and/or product are varied according to the student's level of readiness.	Students with moderate comprehension skills are asked to create a story-web. Students with advanced comprehension skills are asked to re-tell a story from the point of view of the main character.
Compacting	Readiness	Compacting is the process of adjusting instruction to account for prior student mastery of learning objectives. Compacting involves a three-step process: (1) assess the student to determine his/her level of knowledge on the material to be studied and determine what he/she still needs to master; (2) create plans for what the student needs to know, and excuse the student from studying what he/she already knows; and (3) create plans for freed-up time to be spent in enriched or accelerated study.	A student who can decode words with short vowel sounds would not participate in a direct instruction lesson for that skill, but might be provided with small group or individualized instruction on a new phonics skill.
Interest Centers or Interest Groups	Readiness Interest	Interest centers (usually used with younger students) and interest groups (usually used with older students) are set up so that learning experiences are directed toward a specific learner interest. Allowing students to choose a topic can be motivating to them.	Interest Centers - Centers can focus on specific reading skills, such as phonics or vocabulary, and provide examples and activities that center on a theme of interest, such as outer space or students' favorite cartoon characters. Interest Groups - For a book report, students can work in interest groups with other students who want to read the same book.
Flexible Grouping*	Readiness Interest Learning Profile	Students work as part of many different groups depending on the task and/or content. Sometimes students are placed in groups based on readiness, other times they are placed based on interest and/or learning profile. Groups can either be assigned by the teacher or chosen by the students. Students can be assigned purposefully to a group or assigned randomly. This strategy allows students to work with a wide variety of peers and keeps them from being labeled as advanced or struggling.	The teacher may assign groups based on readiness for phonics instruction, while allowing other students to choose their own groups for book reports, based on the book topic.
Learning Contracts	Readiness Learning Profile	Learning contracts begin with an agreement between the teacher and the student. The teacher specifies the necessary skills expected to be learned by the student and the required components of the assignment, while the student identifies methods for completing the tasks. This strategy: (1) allows students to work at an appropriate pace; (2) can target learning styles; and (3) helps students work independently, learn planning skills, and eliminate unnecessary skill practice.	A student indicates that he or she wants to research a particular author. With support from the teacher, the student determines how the research will be conducted and how the information will be presented to the class. For example, the student might decide to write a paper and present a poster to the class. The learning contract indicates the dates by which each step of the project will be completed.
Choice Boards	Readiness Interest Learning Profile	Choice boards are organizers that contain a variety of activities. Students can choose one or several activities to complete as they learn a skill or develop a product. Choice boards can be organized so that students are required to choose options that focus on several different skills.	After students read <i>Romeo and Juliet</i> , they are given a choice board that contains a list of possible activities for each of the following learning styles: visual, auditory, kinesthetic, and tactile. Students must complete two activities from the board and must choose these activities from two different learning styles.

STRATEGIES • RESOURCES • LINKAGES

3

What Does it Look Like for Math?

Math instruction can be differentiated to allow students to work on skills appropriate to their readiness level and to explore mathematics applications. The chart below offers a variety of strategies that can be used.

Strategy	Focus of Differentiation	DEFINITION	EXAMPLE
Tiered Assignments	Readiness	Tiered assignments are designed to instruct students on essential skills that are provided at different levels of complexity, abstractness, and open-endedness. The curricular content and objective(s) are the same, but the process and/or product are varied according to the student's level of readiness.	In a unit on measurement, some students are taught basic measurement skills, including using a ruler to measure the length of objects. Other students can apply measurement skills to problems involving perimeter.
Compacting	Readiness	Compacting is the process of adjusting instruction to account for prior student mastery of learning objectives. Compacting involves a three-step process: (1) assess the student to determine his/her level of knowledge on the material to be studied and determine what he/she still needs to master; (2) create plans for what the student needs to know, and excuse the student from studying what he/she already knows; and (3) create plans for freed-up time to be spent in enriched or accelerated study.	A third grade class is learning to identify the parts of fractions. Diagnostics indicate that two students already know the parts of fractions. These students are excused from completing the identifying activities, and are taught to add and subtract fractions.
Interest Centers or Interest Groups	Readiness Interest	Interest centers (usually used with younger students) and interest groups (usually used with older students) are set up so that learning experiences are directed toward a specific learner interest. Allowing students to choose a topic can be motivating to them.	Interest Centers - Centers can focus on specific math skills, such as addition, and provide activities that are high interest, such as counting jelly beans or adding the number of eyes on two aliens. Interest Groups - Students can work in small groups to research a math topic of interest, such as how geometry applies to architecture or how math is used in art.
Flexible Grouping*	Readiness Interest Learning Profile	Students work as part of many different groups depending on the task and/or content. Sometimes students are placed in groups based on readiness, other times they are placed based on interest and/or learning profile. Groups can either be assigned by the teacher or chosen by the students. Students can be assigned purposefully to a group or assigned randomly. This strategy allows students to work with a wide variety of peers and keeps them from being labeled as advanced or struggling.	The teacher may assign groups based on readiness for direct instruction on algebraic concepts, and allow students to choose their own groups for projects that investigate famous mathematicians.
Learning Contracts	Readiness Learning Profile	Learning contracts begin with an agreement between the teacher and the student. The teacher specifies the necessary skills expected to be learned by the student and the required components of the assignment, while the student identifies methods for completing the tasks. This strategy: (1) allows students to work at an appropriate pace; (2) can target learning styles; and (3) helps students work independently, learn planning skills, and eliminate unnecessary skill practice.	A student decides to follow a football team over a two-month period and make inferences about players' performances based on their scoring patterns and physical characteristics. The student, with the teacher's guidance, develops a plan for collecting and analyzing the data and conducting research about football. The student decides to create a PowerPoint presentation to present his or her findings to the class.
Choice Boards	Readiness Interest Learning Profile	Choice boards are organizers that contain a variety of activities. Students can choose one or several activities to complete as they learn a skill or develop a product. Choice boards can be organized so that students are required to choose options that focus on several different skills.	Students are given a choice board that contains a list of possible activities they can complete to learn about volume. For example, students can choose to complete an inquiry lesson where they measure volume using various containers, use a textbook to read about measuring volume, or watch a video in which the steps are explained. The activities are based on the following learning styles: visual, auditory, kinesthetic, and tactile. Students must complete two activities from the board and must choose these activities from two different learning styles.

3

PLANNING FOR INSTRUCTION

What Does it Look Like for Science?

Science instruction can be differentiated to allow students to explore topics of interest, expand their research skills, and receive instruction on discrete science and inquiry skills. The chart below offers a variety of strategies that can be used.

Strategy	Focus of Differentiation	DEFINITION	EXAMPLE
Tiered Assignments	Readiness	Tiered assignments are designed to instruct students on essential skills that are provided at different levels of complexity, abstractness, and open-endedness. The curricular content and objective(s) are the same, but the process and/or product are varied according to the student's level of readiness.	Some students are provided with direct instruction on the characteristics of living vs. non-living things, and are given guidance in identifying members of both groups. Other students work in teams to identify members of both groups and come up with original examples.
Compacting	Readiness	Compacting is the process of adjusting instruction to account for prior student mastery of learning objectives. Compacting involves a three-step process: (1) assess the student to determine his/her level of knowledge on the material to be studied and determine what he/she still needs to master; (2) create plans for what the student needs to know, and excuse the student from studying what he/she already knows; and (3) create plans for freed-up time to be spent in enriched or accelerated study.	In a science class, students who already know the process of photosynthesis are given a lab assignment in which they must develop and test hypotheses related to the topic, while other students are given more direct instruction on the concept.
Interest Centers or Interest Groups	Readiness Interest	Interest centers (usually used with younger students) and interest groups (usually used with older learners) are set up so that learning experiences are directed toward a specific learner interest. Allowing students to choose a topic can be motivating to them.	Interest Centers - Centers can focus on specific topics in Earth Science, such as classifying rocks or carbon dating. Interest Groups - Students can work in small groups to prepare and debate issues surrounding the origin of the universe.
Flexible Grouping*	Readiness Interest Learning Profile	Students work as part of many different groups depending on the task and/or content. Sometimes students are placed in groups based on readiness, other times they are placed based on interest and/or learning profile. Groups can either be assigned by the teacher or chosen by the students. Students can be assigned purposefully to a group or assigned randomly. This strategy allows students to work with a wide variety of peers and keeps them from being labeled as advanced or struggling.	The teacher may assign groups based on student characteristics for a lab in which each group member must take on a specific role. For example, a student who is a strong writer might take notes for the group, while a student who enjoys public speaking might present the group's findings. Students may choose their own groups for another lab in which they will explore the properties of an inanimate object.
Learning Contracts	Readiness Learning Profile	Learning contracts begin with an agreement between the teacher and the student. The teacher specifies the necessary skills expected to be learned by the student and the required components of the assignment, while the student identifies methods for completing the tasks. This strategy (1) allows students to work at an appropriate pace; (2) can target learning styles; and (3) helps students work independently, learn planning skills, and eliminate unnecessary skill practice.	A student wants to trace his or her family tree and genetic traits. With the teacher's guidance, the student develops a plan for researching family traits and for learning about genetics. The student decides to make a poster of his or her family tree (with graphics representing genetic traits) to present to the class.
Choice Boards	Readiness Interest Learning Profile	Choice boards are organizers that contain a variety of activities. Students can choose one or several activities to complete as they learn a skill or develop a product. Choice boards can be organized so that students are required to choose options that focus on several different skills.	Students are given a choice board that contains a list of possible activities they can complete to learn about density. The activities include using a water table to explore properties of various objects, reading about density in the textbook, and watching a video with demonstrations centered around density. The activities are based on the following learning styles: visual, auditory, kinesthetic, and tactile. Students must complete two activities from the board and must choose these activities from two different learning styles.

REFERENCES AND RESOURCES

Hall, T., Strangman, N., & Meyer, A. (2003). *Differentiated instruction and implications for UDL implementation*. National Center on Accessing the General Curriculum. Retrieved July 9, 2004 from: http://www.k8accesscenter.org/training_resources/udl/diffinstruc-tion.asp

Tomlinson, C.A. (1999). *How to differentiate instruction in mixed-ability classrooms*. Alexandria, VA: ASCD.

READING

<http://www.cast.org/ncac/index.cfm?i=2876> – This site contains an article by Tracy Hall at the National Center for Accessing the General Curriculum. The article discusses differentiation as it applies to the General Education classroom.

<http://www.readingrockets.org/print.php?ID=154> – This site provides examples and strategies for differentiated instruction in reading.

<http://members.shaw.ca/priscillatheroux/differentiatingstrategies.html> – The Enhancing Learning with Technology site provides explanations for various differentiation strategies.

MATH

<http://www.cast.org/ncac/index.cfm?i=2876> – This site contains an article by Tracy Hall at the National Center for Accessing the General Curriculum. The article discusses differentiation as it applies to the General Education classroom.

<http://members.shaw.ca/priscillatheroux/differentiatingstrategies.html> – The Enhancing Learning with Technology site provides explanations for various differentiation strategies.

<http://www.webmath.com/> – This mathematics Web site provides assistance with solving math problems.

SCIENCE

<http://www.cast.org/ncac/index.cfm?i=2876> – This site contains an article by Tracy Hall at the National Center for Accessing the General Curriculum. The article discusses differentiation as it applies to the General Education classroom.

<http://members.shaw.ca/priscillatheroux/differentiatingstrategies.html> – The Enhancing Learning with Technology site provides explanations for various differentiation strategies.

<http://www.mcps.k12.md.us/curriculum/science/instr/differstrategies.htm> – A Web site that lists instructional strategies and techniques that teachers can use to differentiate in the science classroom.

*The Access Center at accesscenter@air.org.
The Access Center: Improving Outcomes for All Students K-8*

* More information about grouping strategies can be found in Strategies to Improve Access to the General Education Curriculum. Available at http://www.k8accesscenter.org/training_resources/curricular_materials.asp

Direct/Explicit Instruction

What Is Direct/Explicit Instruction?

Direct instruction is a teacher-centered instructional approach that is most effective for teaching basic or isolated skills (Kroesbergen & Van Luit, 2003). It can be a scripted program that is very systematic with a step-by-step format requiring student mastery at each step. It is generally fast-paced instruction and often used with a small group of students. Students respond to instruction and receive immediate feedback. Direct instruction also includes continuous modeling by teachers, followed by more limited teacher involvement and then fading teacher involvement as students begin to master the material (Maccini & Gagnon, 2000).

With direct instruction, teachers follow a sequence of events, generally stating the objective, reviewing skills necessary for new information, presenting new information, questioning students, providing group instruction and independent practice, assessing performance, and giving more practice (Swanson, 2001). Swanson identified 12 criteria associated with direct instruction. When any four of these indicators are present, direct instruction is occurring.

1. Breaking down a task into small steps
2. Administering probes
3. Administering feedback repeatedly
4. Providing a pictorial or diagram presentation
5. Allowing independent practice and individually paced instruction
6. Breaking the instruction down into simpler phases
7. Instructing in a small group
8. Teacher modeling a skill
9. Providing set materials at a rapid pace
10. Providing individual child instruction
11. Teacher asking questions
12. Teacher presenting the new (novel) materials (Swanson, 2001, p. 4)

Direct Instruction, Strategy Instruction, and Learning Strategies: What's the Difference?

Direct instruction is teacher centered and focused on helping students learn basic skills and information. Strategy instruction is student centered and teaches students how to learn information and then retrieve that information when it is needed. Learning strategies are taught during strategy instruction as ways of organizing information so that it can be retrieved. All three could and should be found in the same lesson because they complement one another, and strategy instruction and direct instruction are very similar.

How Is Direct/Explicit Instruction Implemented?

Teachers may develop their own direct instruction lessons by breaking the desired concept into smaller tasks and then developing scripted, fast-moving sessions. They must regularly check for understanding and provide immediate feedback. Most instructional computer programs use direct instruction, presenting a lesson and then providing immediate feedback and remediation when the students make an error. Mathematics programs that use direct instruction also offer teachers scripted mathematics lessons, manipulatives, activities, and short assessments that are easy for teachers or students to grade. Many mathematics textbooks use a direct instruction approach to teaching mathematics.

According to researchers and the results of several meta-analyses (Ellis, 1993; Karp & Voltz, 2000; Swanson, 2001), using a combination of direct instruction and strategy instruction has a greater positive effect than either method alone. Teachers should consider ways to use both direct instruction and strategy instruction in each lesson to gain the maximum benefit from each approach. Teaching basic skills to students through direct instruction and then teaching them strategies to store and retrieve the information will ensure a successful educational experience for all students. However, for students with disabilities and students who are at risk, these approaches are crucial for the retention of new skills.

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The Access Center at accesscenter@air.org.

Computer-Assisted Instruction

What Is Computer-Assisted Instruction?

“Computer-assisted instruction” (CAI) refers to instruction or remediation presented on a computer. Many educational computer programs are available online and from computer stores and textbook companies. They enhance teacher instruction in several ways.

Computer programs are interactive and can illustrate a concept through attractive animation, sound, and demonstration. They allow students to progress at their own pace and work individually or problem solve in a group. Computers provide immediate feedback, letting students know whether their answer is correct. If the answer is not correct, the program shows students how to correctly answer the question. Computers offer a different type of activity and a change of pace from teacher-led or group instruction.

Computer-assisted instruction improves instruction for students with disabilities because students receive immediate feedback and do not continue to practice the wrong skills. Computers capture the students’ attention because the programs are interactive and engage the students’ spirit of competitiveness to increase their scores. Also, computer-assisted instruction moves at the students’ pace and usually does not move ahead until they have mastered the skill. Programs provide differentiated lessons to challenge students who are at risk, average, or gifted.*

How Is CAI Implemented?

Teachers should review the computer program or the online activity or game to understand the context of the lessons and determine which ones fit the needs of their students and how they may enhance instruction.

- Can this program supplement the lesson, give basic skills practice, or be used as an educational reward for students?
- Is the material presented so that students will remain interested yet not lose valuable instruction time trying to figure out how to operate the program? Does the program waste time with too much animation?
- Is the program at the correct level for the class or the individual student?

Teachers should also review all Web sites and links immediately before directing students to them. Web addresses and links frequently change and become inactive. Students might become frustrated when links are no longer available.

What Does CAI Look Like for Reading?

Reading computer programs demonstrate concepts, instruct, and remediate student errors and misunderstandings from preschool through college. Some programs help students learn basic sight word and phonics skills; others develop and enhance reading comprehension skills through increased fluency, word prediction, and story prediction. Programs may use reading activities as a community service project (<http://www.readtofeed.org>) or as competition among students to read books (Accelerated Reader). The U.S. Department of Education has a site that helps parents determine whether their child’s early reading program is a good one: http://www.ed.gov/parents/read/re_sources/goodprogram.html. Computers may be used individually or in groups in a cooperative learning environment where students can discuss concept as they learn them.

* The programs cited in this discussion are based on research; however, it is not the purpose of this report to evaluate the rigor of the research supporting the programs themselves.

STRATEGIES • RESOURCES • LINKAGES

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Below is an example of a computerized program as the student sees it. The program may be used for instruction or assessment. The student uses the mouse to click the best word of the three presented for each blank to complete the sentence so that it makes sense. If this activity is used for instruction, the program gives positive feedback for correct answers or shows the student which answers are wrong and then gives the correct choice. The program may speak the sentence with the wrong word and ask the student to choose another word of the three, or it may highlight the correct choice and speak the correct sentence. If the program is used for assessment, no remediation is given; the program just scores the sentence.

Example of a Computerized Activity

FIRST SCREEN

Bobby _____ up the flute and began to _____ into it to make _____.		
ran	look	music
picked	jump	picture
tossed	blow	play

SECOND SCREEN

Bobby <u>picked</u> up the flute and began to <u>blow</u> into it to make <u>play</u> .		
ran	look	music
<u>picked</u>	jump	picture
tossed	<u>blow</u>	<u>play</u>

THIRD SCREEN

Bobby <u>picked</u> up the flute and began to <u>blow</u> into it to make <u>play</u> .		
		music
		picture
		<u>play</u>

One program that teaches phonics and reading skills to all ages of students continually monitors a student's speed and accuracy as the student works through each lesson (**Autoskills**; <http://www.autoskill.com>). The teacher sets an accuracy goal in the program for the student – the number of sounds or words per minute that the student must master. At the most basic level, the student, using headphones, hears the sound of the letter and then chooses which of three letters presented has that sound. For example, the program makes the sound of the letter k as this screen appears. The student uses the mouse to choose the correct letter. If the student makes the correct choice, a checkmark appears over the letter. If the choice is incorrect, an X appears over the correct letter. In either case, the program then quickly moves to the next letter.

m	k	l
---	---	---

m	✓ k	l
---	--------	---

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PLANNING FOR INSTRUCTION

The program gives the student 50 sounds and measures the amount of time the student takes to identify them. The number of sounds the student correctly identifies divided by the number of minutes is the measure of correct sounds per minute. The program graphs the information for the student and then prints a copy of the student's errors for the teacher. When the student reaches the goal the teacher has set, the program moves the student up to the next skill level. When the student has mastered the phonics, he or she will see word games and puzzles, a maze for comprehension, and a library with stories and comprehension questions. Programs such as this one are used for at-risk students and students with disabilities in middle and high school and with adults to improve reading skills.

Reading programs are beneficial to reading instruction because they allow students to learn at their own pace; teach phonics with sound, student interaction, and immediate feedback; and allow students to read animated books. Some programs read stories that students write on the computer. Students may be scheduled for instructional or remedial time with the computer. The computer program may also be a station in a classroom learning center or used as a reward for positive behavior or work completion.

REFERENCES AND RESOURCES

<http://www.autoskill.com/> – A helping hand for literacy, this is the home site for the Autoskills computer program, which is beneficial for students who are at risk or have a reading disability and for ESL students.

<http://www.bcps.org/offices/lis/models/tips/readingpage/motivation.html> – This Baltimore County (Maryland) Board of Education Web site has activities, booklists, author lists, lesson plans, and more.

http://dir.yahoo.com/Business_and_Economy/Business_to_Business/Education/By_Subject/Reading_and_Writing/Teaching_and_Learning_Aids/ – This site presents lists of programs. Some are free and some require purchase of a program.

<http://disney.go.com/disneyhand/learning/readingtogether/> – This site encourages parents and their children to read entertaining stories together. The site offers downloadable reading tips and a colorful idea book and bookmarks.

http://www.education-world.com/a_curr/curr183.shtml – Education World's Online Book Incentive program provides online quizzes to test students' comprehension of books they have read. Students choose library books from an online list, read them, and then take the quiz. The material is appropriate for K–8 students.

<http://www.house.gov/fattah/education/funandrec.htm> – Pennsylvania's Congressman Fattah's Web site offers literacy information.

<http://www.kcw.org/reprek6.htm> – This site has links for parents and educators of students in grades pre-K to 6.

<http://www.netn.net/14113.htm> – This site has many interesting science, early education, activity, and organization links for elementary school teachers and for parents of elementary school children. Some of the sites are free and some charge a fee for their materials.

<http://www.starfall.com> – This site offers phonics instruction and books that the computer reads aloud with the student.

What Does CAI Look Like for Mathematics?

In one computer game for children ages 5 through 12, a little green monster gobbles numbers on a grid-like screen while avoiding evil monsters. The little green monster, controlled by the student, may be asked to gobble prime numbers, multiples of 4, or factors of 32. If the little green monster eats the wrong number, it disappears. This type of game is a fun way for students to teach themselves basic skills, and it could be used as a reward.

Mathematics computer programs demonstrate concepts, instruct, and remediate student errors and misunderstandings from preschool through college. Some programs are useful for teaching basic skills. Many entertaining computer mathematics games encourage students to learn while enjoying the experience. Other programs are useful for instruction or remediation because they present problems that the student answers. If the answer is correct, the student is usually rewarded with a “Great Job!” or an animated response on the computer screen. If the answer is wrong, the computer demonstrates the correct way to solve the problem. The example below demonstrates a typical mathematics computer lesson for demonstrating the concept of regrouping in addition.

Finally, programs are available that demonstrate mathematical concepts that are better explained through visual or manipulative resources. Examples of such online programs are the Math Forum @ Drexel at <http://mathforum.org/arithmetic/arith.software.html> and the Virtual Library of Interactive Manipulatives for Interactive Mathematics developed by Utah State University at <http://matti.usu.edu/nlvm/nav/index.html>.

What Does CAI Look Like for Science?

A Web site developed by the University of Vermont, <http://www.uvm.edu/~jmorris/Sci.html> contains links to many science programs. There are virtual field trips and experiences, science museums, lesson and unit plans, science information and ideas, and videos and software. Not all of the sites are free, but there are a variety of programs described, and this site is a good place to start. One site, for example, <http://gldss7.cr.usgs.gov/neis/qed/qed.html>, developed by the USGS, shows the position and magnitude of the earthquakes that have occurred over the past 8 – 30 days. One word of caution, try the Web sites on the above university Web site before you plan to use it. Several of the links are no longer available.

Science computer programs demonstrate concepts, instruct, and remediate student errors and misunderstandings from preschool through college levels. Some programs help students learn key vocabulary words; others demonstrate concepts such as how machines work, the life cycle of a butterfly, and the positions of the stars and planets. Students can use Web sites to research information, find resources, or locate topics for science fair projects. Many science textbooks come with interactive CD-ROMs that can be used to reinforce ideas. Computer-created graphic organizers and concept maps can be used by students to organize ideas in science or as a guide for interpreting information found in a science textbook. Students can spend time in a virtual laboratory studying chemical reactions or observing a microscopic cell. They can answer questions about animals, see how clouds and mountains are formed, or watch the movement of the plates of our planet. There are games, quizzes, and information to support and enhance instruction. Problem-solving activities help students improve their higher order thinking skills and challenge all students. Below is an example of what students may see on the United States Geological Survey (USGS) Web site.

Thinking About The Role of Instructional Strategies in Differentiation

STRATEGY FOR DIFFERENTIATION	PRIMARILY USED TO DIFFERENTIATE	POSITIVES	CAUTIONS
Tiered Assignments	for Readiness	for Readiness	Must use only part of a flexible grouping pattern
Tiered Products	Readiness, Interest, Learning Profile	Can be passion-producing	Must provide coaching for quality
Learning Contracts	Readiness	Encourage student autonomy	Be sure to blend skill and content
Drill-Focused Cooperative Tasks	Low End Readiness	Deals with coverage and mastery issues	May aggravate have/have not status
Thought/Production Focused Cooperative Tasks	Interest, Learning Profile	Involves all students with high level tasks	Be sure tasks call for varied intellectual skills
Alternative Assessments	Readiness, Learning Profile	More of a real-world way of measuring student learning	Be sure assessments focus on essential understandings and skills
Graduated Rubrics	Readiness	Clear coaching for quality and success	Take care to stress ideas and process more than mechanics
Choice Boards	Readiness, Interest	Balances teacher choice and student choice	Teacher choice should target readiness
Learning Centers	Readiness	Can target varied skill levels in a class	Don't send all students to all centers
Interest Centers	Interest	Can link classroom topics to areas of student talent and interest	Be sure centers provide depth or breath (vs. cute)
Enrichment Clusters	Interest, Learning Profile	Stresses student choice and students as producers of useful products	Lose their punch without teachers skilled in the cluster domain
Compacting	High End Readiness	Can reduce unnecessary redundancy for advanced or eager learners	Loses its punch unless Column 3 is rich and challenging
Peer Tutoring	Low End Readiness	Gives struggling learners additional explanation opportunities	Can over-use high end learner in teacher role and may short change struggling learner if tutor is weak
Multi-Ability Options (MI, Triarchic Theory)	Interest, Learning Profile	Encourages teachers to be flexible in planning routes to learning	Can easily become just a learning style vs. intelligence approach
4-Mat	Learning Profile	Helps teachers be more conscious of student learning style/mode	Can become formula-like. Does not address readiness
Independent Study	Interest	Encourages student autonomy in planning and problem-solving	Students need an amount of independence suited to their readiness for it.
Small Group Direct Instruction	Readiness	Cuts down size of class and increases student participation	Students not being taught must be well anchored.

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The Instructional Hierarchy

Linking Stages of Learning to Effective Instructional Techniques

When mastering new academic skills or strategies, the student learner typically advances through a predictable series of learning stages. At the start, a student is usually halting and uncertain as he or she tries to use the target skill. With teacher feedback and lots of practice, the student becomes more fluent, accurate, and confident in using the skill. It can be very useful to think of these phases of learning as a hierarchy. The learning hierarchy (Haring, Lovitt, Eaton, & Hansen, 1978) has four stages: acquisition, fluency, generalization, and adaptation:

Stages of Learning

- 1. Acquisition.** The student has begun to learn how to complete the target skill correctly but is not yet accurate or fluent in the skill. The goal in this phase is to improve accuracy.
- 2. Fluency.** The student is able to complete the target skill accurately but works slowly. The goal of this phase is to increase the student's speed of responding (fluency).
- 3. Generalization.** The student is accurate and fluent in using the target skill but does not typically use it in different situations or settings. Or the student may confuse the target skill with 'similar' skills. The goal of this phase is to get the student to use the skill in the widest possible range of settings and situations, or to accurately discriminate between the target skill and 'similar' skills.
- 4. Adaptation.** The student is accurate and fluent in using the skill. He or she also uses the skill in many situations or settings. However, the student is not yet able to modify or adapt the skill to fit novel task-demands or situations. Here the goal is for the student to be able to identify elements of previously learned skills that he or she can adapt to the new demands or situation.

When the teacher accurately identifies a student's learning stage, the instructor can select instructional ideas that are more likely to be successful because these strategies match the student's learning needs.

Matching Interventions to Student Learning Stage

(HARING, ET AL., 1978)

LEARNING STAGE STUDENT 'LOOK-FORS'... WHAT STRATEGIES ARE EFFECTIVE

ACQUISITION

Exit Goal: The student can perform the skill accurately with little adult support.

- Is just beginning to learn skill
- Not yet able to perform learning task reliably or with high level of accuracy
- Teacher actively demonstrates target skill
- Teacher uses 'think-aloud' strategy – especially for thinking skills that are otherwise covert
- Student has models of correct performance to consult as needed (e.g., correctly completed math problems on board)
- Student gets feedback about correct performance
- Student receives praise, encouragement for effort

FLUENCY

Exit Goals: The student has: (A.) learned skill well enough to retain; (B.) learned skill well enough to combine with other skills; (C.) is as fluent as peers.

- Gives accurate responses to learning task
- Performs learning task slowly, haltingly
- Teacher structures learning activities to give student opportunity for active (observable) responding
- Student has frequent opportunities to drill (direct repetition of target skill) and practice (blending target skill with other skills to solve problems)
- Student gets feedback on fluency and accuracy of performance
- Student receives praise, encouragement for increased fluency

GENERALIZATION

Exit Goals: The student uses: (A.) the skill across settings, situations; (B.) does not confuse target skill with similar skills.

- Is accurate and fluent in responding
- May fail to apply skill to new situations, settings
- May confuse target skill with similar skills (e.g., confusing '+' and 'x' number operation signs)
- Teacher structures academic tasks to require that the student use the target skill regularly in assignments.
- Student receives encouragement, praise, reinforcers for using skill in new settings, situations
- If student confuses target skill with similar skill(s), the student is given practice items that force him/her to correctly discriminate between similar skills
- Teacher works with parents to identify tasks that the student can do outside of school to practice target skill
- Student gets periodic opportunities to review, practice target skill to ensure maintenance

ADAPTATION

Exit Goal: The Adaptation phase is continuous and has no exit criteria.

- Is fluent and accurate in skill
- Applies skill in novel situations, settings without prompting
- Does not yet modify skill as needed to fit new situations (e.g., child says 'Thank you' in all situations, does not use modified, equivalent phrases such as "I appreciate your help.")
- Teacher helps student to articulate the 'big ideas' or core element(s) of target skill that the student can modify to face novel tasks, situations (e.g., fractions, ratios, and percentages link to the 'big idea' of the part in relation to the whole; 'Thank you' is part of a larger class of polite speech)
- Train for adaptation: Student gets opportunities to practice the target skill with modest modifications in new situations, settings with encouragement, corrective feedback, praise, other reinforcers
- Encourage student to set own goals for adapting skill to new and challenging situations

REFERENCE

Haring, N.G., Lovitt, T.C., Eaton, M.D., & Hansen, C.L. (1978). *The Fourth R: Research in the classroom*. Columbus, OH: Charles E. Merrill Publishing Co.

Help Signal

The time that students spend in the classroom actually working on academic subjects is sometimes referred to as ‘engaged time.’

Tailoring Help-Signals to Fit the Classroom. The help-signal intervention can be tailored to fit the circumstances of different classrooms. For example, you might:

- Train all students to use the help-signal as a classwide intervention.
- Select a ‘secret’ signal for the student to use that is clearly observable to the teacher but is unlikely to draw the attention of other children. You might, for instance, pick a red folder to hold the student’s alternative work and tell the student simply to pull out that folder and begin working from it whenever he or she needs help. Whenever you see the red folder open on the student’s desk, you will know that the child needs help.
- Provide rewards to the student for following the help-signal routine and include mild negative consequences (e.g., temporary loss of a classroom privilege) if the student refuses to comply.

During independent seatwork, difficult-to-teach students may not have effective strategies to ask for teacher help. Instead, when these students encounter a problem or work example that they cannot complete on their own, they may start to act out, distract peers seated around them, interrupt the teacher (who may be working with another group of students), or simply sit passively doing nothing. The help-signal is a flexible procedure that the student can use to get teacher assistance during independent seatwork. It allows the student to signal the teacher unobtrusively for help while continuing to work productively on alternative assignments.

STEPS IN IMPLEMENTING THIS INTERVENTION

Step 1: Select a Student Signal. Decide on a way that the student can signal that they require teacher help. One approach is to prepare a ‘help-flag’ (a strip of colored, laminated posterboard) with the word ‘Help’ or similar word written on it. Attach a Velcro tab to the flag and affix a corresponding adhesive Velcro strip to the student’s desk.

Step 2: Create an Alternative Work Folder. Create a student work folder and fill it with alternate assignments or worksheets that the student can work on independently. For example, you might insert into the folder math worksheets, a writing assignment, or lists of reading vocabulary words to be practiced.

Step 3: Introduce the Program to the Student. Set aside time to meet with the student to introduce the help-signal routine.

- Show the student how to post the help-flag or other help signal.
- Instruct the student that he or she should post the help-signal whenever he or she becomes stuck on seatwork and needs instructor assistance.
- Tell the student that – after posting the help-signal – the student should next check over the current work assignment to see if there are other problems or items that he or she can work on while waiting for the teacher.
- Show the student the alternative-work folder. Tell the student that if he or she cannot continue on any part of the seatwork, the student should pull out the folder and begin to work on an alternative assignment. The student is to continue working on that assignment until the teacher or other staff member can get to the student’s desk to provide assistance. Also, be sure that your student knows during what activities and times during the school day that he or she is to use the help-signal to indicate that adult attention is needed.
- Give the student a chance to try out the help-signal under your guidance, and offer feedback about the performance. Let students know that if they stand and approach you for help directly rather than posting the help-signal, you will remind them to use the signal and then send them back to their seat.

STEP 4: Begin the Intervention. Start the help-signal as soon as you feel that the student understands and will comply with the system. Take care to scan the room periodically when you are free during student independent seatwork to see if any students might need your assistance.

Extending Learning Across Time & Space: The Power of Generalization

Teachers have every right to celebrate when they finally succeed in teaching struggling students to use academic or behavioral strategies in their classrooms. Despite this encouraging start, teachers often still face an important challenge with their interventions. A frequent stumbling block to an effective intervention outcome is that the student fails to transfer academic or behavioral strategies to other settings or situations where those strategies would be most useful. That is, students may not generalize their positive behavior changes, which can greatly reduce the overall positive impact of classroom interventions.

To appreciate the importance of generalization, consider these examples:

- Sarah, a 4th grade student, has a one-year reading delay and needs lots of practice in reading to increase her rate of decoding. However, she never picks up a book outside of school.
- Jack, an 8th-grader, gets into fights frequently and has poor relationships with peers. He participates in a social-skills group. When interacting with other students under the watchful eye of the school counselor, Jack shows that he is able both to identify when he becomes angry and employ several strategies to calm himself down. In unstructured settings such as the lunchroom or hallway though, Jack continues to get into arguments and shoving matches with other students.
- Thomas has learned terrific study skills in his 7th-grade social studies class. His class notes were once a shambles-but now are neatly written and thorough. In science class, however, Thomas' notes continue to be messy and incomplete, and his science test grades suffer as a result.

While the student scenarios presented here vary, they share a single characteristic: The student has failed to transfer, or generalize, learned behaviors to new settings or situations.

When developing school-based interventions, most educators simply 'treat and hope' (Rutherford & Nelson, 1988). That is, they put together research-based strategies to improve student behaviors or academic performance-and then hope that the student will generalize the successful strategies rather than explicitly train the student to apply these new, more adaptive strategies to other situations in which they would be useful.

There are several explanations for why a student may fail to generalize a skill to a new setting or situation.

- One barrier to generalization is that the student may not be able to identify relevant cues in the new setting that would trigger that student's use of the target skill. For example, our 4th-grade student Sarah is not likely to read at home if there are few books available to remind her that she can choose to read as a leisure activity.
- A second barrier to generalization may be that the student is not reinforced for using a target skill in the new setting or situation. Thomas, the 7th-grader, takes polished notes in social studies because the teacher praises and encourages him for his effort-but he does not put effort into writing his science notes because the science teacher pays little attention to note-taking.
- As yet another generalization barrier, a student's newly learned behaviors may be suppressed in a specific setting because the student's inappropriate behaviors continue to be unintentionally rewarded, or reinforced, in that setting. So Jack, the 8th-grade student, shows appropriate social skills in a group but does not transfer those same skills to the hallway or lunchroom because he is powerfully reinforced with plenty of peer attention when he gets into arguments and shoving matches with other students. Jack is unlikely to try out new, socially appropriate ways of interacting with peers in natural settings until his reinforcement for engaging in the new behaviors outweighs the payoff he receives for the old, maladaptive behavior.

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PLANNING FOR INSTRUCTION

EXTENDING LEARNING ACROSS TIME & SPACE: THE POWER OF GENERALIZATION

The following are some ideas that teachers can try when programming for generalization (McConnell, 1987; Rutherford & Nelson, 1988; Stokes & Baer 1977; Stokes & Osnes, 1988). While there are many more strategies for promoting generalization than are contained in this handout, the tips outlined here do address challenges that teachers commonly face in getting students to transfer skills to the settings or situations in which they are most needed.

The student has learned a skill or strategy well in one setting. The goal now is to have the student transfer that skill or strategy to other appropriate settings. ('Generalization to other settings').

Prepare Strategy Sheets. Once the student has mastered a skill or strategy in one setting, assist the student in creating a 'strategy sheet' that captures in checklist format the key steps that make up the strategy. Starting in the setting in which the student already successfully uses the strategy, train the student to use the checklist as an independent self-check to verify that he or she is implementing the strategy correctly. (If the targeted strategy is 'note-taking', for example, a strategy checklist might include items such as 'Brought paper and writing materials to class', 'Sat near the teacher', 'Wrote down all key points', 'Highlighted unfamiliar vocabulary', etc.) Once the student has demonstrated reliably that he or she can use the checklist correctly, meet with the student and identify other settings where the student would benefit from using the strategy. Make a list of those settings. Establish the goal for the student that he or she will use the strategy in the new settings whenever appropriate. Have the student log the times when he or she actually uses the strategy in those new settings. Reward (and praise) the student for instances in which the student successfully employs the skill or strategy under the appropriate circumstances in the new setting.

Encourage Other Teachers to 'Coach' the Strategy. Talk with other educators in your school who work with your student. Describe for them the skill or strategy that your student is able to use reliably in your classroom and that you would like to see generalized to other settings. Encourage these educators to prompt the student to use the strategy when appropriate in their classrooms. Request that your colleagues keep you informed and be sure to reward and praise the student whenever teachers outside of your room report that the student has successfully used the strategy!

Identify the 'Look-Fors' That Trigger Use of the Strategy. 'Help your student to identify key characteristics – or 'look-fors' – of settings in which he or she should use the selected skill or strategy. A student attempting to generalize note-taking skills, for example, may identify 'The teacher lectures to the whole class' as a signal that he should use his note-taking skills. Another student may have learned to take a short discretionary time-out whenever she becomes overly upset with difficult classwork. This student might define 'I try to do schoolwork and I feel a knot in my stomach' as a physical indicator that she should use the time-out strategy, no matter what class she is attending. As an additional support for generalization, inform other educators about the particular strategy the student needs to use in other settings and the key indicators the student has identified that should trigger his or her use of the strategy. If these staff members notice that the student has overlooked an opportunity to employ the strategy in their classrooms, they can approach and prompt that student to use the strategy.

Use a Skill Diary. For academic skills or strategies, ask the student to keep a skill diary in which the student records those situations or settings when he or she has successfully used the strategy. Meet with the student periodically to review entries and reinforce the student's efforts. When conferencing with the student, ask to see examples of those student work products that were created using the skill (e.g., copies of class notes, essays, completed math problems)-both to verify that the student actually used the target strategy as claimed and to check that the strategy is indeed helping the student to improve performance.

EXTENDING LEARNING ACROSS TIME & SPACE: THE POWER OF GENERALIZATION

Standardize Routines Across Classrooms. Collaborate with other teachers with whom you share students to develop a single, standardized set of general behavior and academic management techniques across all of your classrooms. Students often discover that teacher expectations vary dramatically depending on the classroom they happened to be sitting in. In fact, when faced with differing expectations across classrooms, students are likely to view each room as a separate kingdom governed by its own set of unfathomable rules. We should not be surprised, then, if students who move among highly variable classroom environments fail to generalize skills learned in one of these settings to others. In contrast, when a student encounters uniform academic routines and behavioral expectations in each classroom, that student is more likely to independently generalize adaptive academic and behavioral skills and strategies from one setting to all settings.

The student has responded well to an intervention that includes reinforcement for appropriate behaviors. Now the teacher wants to fade the reinforcement or make the program easier to manage while maintaining the positive behavioral effects. ('Generalization to other reinforcers').

Transition the Student From Rewards to Privileges. Create a set of privileges that you believe the student is likely to find motivating. Sample privileges might be: 'The student is allowed to walk independently through hallways without adult supervision.' 'The student may be selected by the teacher to run errands' etc. When the student displays a stable period (e.g., several weeks) of behavior improvement under the individualized reinforcement program, meet with the student to praise the improvement. Let the student know that you plan to discontinue the reward program because the student has shown that he or she can now be trusted to transition to higher-level privileges. Review those privileges with the student. Let the student know that he or she can continue to access the classroom privileges so long as the student continues to show good behaviors.

Pair Rewards With Naturally Occurring Classroom Reinforcement. Identify opportunities that naturally occur in your classroom to positively reinforce the student. Examples include teacher or peer praise, social interactions, exposure to interesting learning opportunities, and improved grades. As the student earns rewards under his or her individualized reinforcement program, pair those 'artificial' rewards with natural reinforcers that also appear to motivate the student.

For example, a teacher finds that a behaviorally challenging boy in her class responds very well to praise-but only when that praise is delivered in a private conversation rather than publicly. So whenever the teacher pulls the student aside to give him an earned reward, she uses that opportunity to quietly praise his effort. Eventually, the teacher lets the student know that his behavior has improved to the point where the reward program can be discontinued. However, she continues to meet with him for brief, private 'pep talks', during which she continues to praise his sustained behavioral gains. In this example, praise – a reinforcer naturally available in the classroom – is now maintaining the student's behavioral improvements, having replaced the more artificial set of rewards previously needed to shape the student's behavior.

Transition from Individual to Classwide Rewards. Create a menu of classwide incentives for appropriate behavior that can be accessed by any student. (For example, any student in the class who displays good behaviors through an entire day may be allowed to spend the last 10 minutes of class in a supervised activity at the gym.)

Your eventual goal is to replace a target student's individualized rewards with the class menu of rewards. Once a target student is able to bring his or her behaviors into line through the use of individualized incentives, the student can be weaned off those individual rewards and instead join peers in selecting earned reinforcers from the classwide reward menu. This approach has two advantages: First, a classwide reward system is often highly motivating and may well bring about substantial improvements in the entire group's behaviors. Second, the target student becomes more fully integrated with 'typical' peers when he or she is able to share in their rewards.

EXTENDING LEARNING ACROSS TIME & SPACE: THE POWER OF GENERALIZATION

Give the Student Responsibility for Monitoring Behaviors and Earned Rewards. As the target student demonstrates behavioral success, train that student to monitor his or her own behaviors (e.g., using a daily self-monitoring chart). Inform the student that he or she is responsible for: (1) tracking those self-ratings; (2) noting when a reinforcer has been earned; and (3) approaching the teacher to receive a reward. Of course, the teacher should occasionally ‘spot-check’ the student’s self-ratings to ensure that the student is accurately rating his or her behaviors.

Changes in the classroom environment are required to fully support the student’s behavior changes. (‘Modifying the setting to support target behavior’).

Teach the Student to Recruit Reinforcement. Train the target student to seek reinforcement from others in appropriate ways that support his or her behavioral targets. For example, a student whose attention often wanders during independent seatwork may be trained to politely and quietly ask a peer for help in understanding directions or finding his place in a group assignment. Or a student who often fails to complete classwork but finds teacher attention to be very motivating may be taught to ‘recruit’ teacher praise by reliably turning in completed assignments that demonstrate her best effort.

Train Peers to Be Helpers. Teach classmates routines for providing friendly assistance to one another. Training peers as helpers can foster a positive learning environment, one in which your target student is more likely to be reinforced for taking risks and trying out new, positive behaviors.

For example, you might train students to assist peers who lose their place in assignments, politely redirect neighboring students whenever they engage in distracting off-task behaviors during learning activities, or check in with ‘peer buddies’ at the end of the day to make sure that they have written down their homework assignments correctly and have the necessary materials to complete their homework. Reward these peer helping behaviors with praise. Also consider the option of assigning ‘prize-points’ to student helpers that can be redeemed for rewards or privileges.

Institute a Classwide Reward System. Put a classwide reward system in place to suppress group negative behaviors that can disrupt the learning environment and undermine a target student’s attempts to try out new, appropriate behaviors in the class setting. A teacher might set up a simple group reward program, for example, in which the entire class is awarded 20 ‘good behavior’ points for each morning and 20 points for each afternoon in which they show consistently positive behavior. The class is promised a pizza party when they have accumulated 1200 points. However, the group will fail to earn points in a given morning or afternoon if they persist in negative behaviors after two teacher warnings. Negative behaviors might include talking during teacher-directed lessons, laughing at another student’s misbehavior, or engaging in teasing or putdowns. A group behavior plan can help to improve the learning environment and also prevent a target student from being picked on by peers or being encouraged to misbehave.

OTHER GENERALIZATION CHALLENGES:

Diversify Student Responses. Your student may have successfully learned a very narrowly focused behavior but not yet learned how to generalize that behavior to a larger ‘response-class’ (group of functionally equivalent behaviors). For example, a teacher may have a child with cognitive delays who has learned to greet people by saying “hi” but has not yet learned to generalize his response by accessing a larger pool of possible greetings (e.g., “Good morning”, “Hello”, “How are you?”). In this situation, that instructor might first explicitly teach the student a range of acceptable variations on the learned behavior. Next, reinforce the student for appropriate use of varied examples from the larger response class in a controlled setting, and finally reinforce the student for using generalized behaviors in real-world settings.

You may also want to teach the student to distinguish between examples and non-examples of a response class so that the student can eventually judge independently whether a particular behavior is appropriate for use within the context of a specific setting or situation. To return to our example, the teacher might train the student to hear a word or phrase and be able to indicate whether it is or is not typically used as a social greeting.

Help the Student to Retain Skills Over Time. Your student appears to have mastered a strategy or skill during one class session but seems to have forgotten that skill by the next class session. ('Generalization across time').

Here are some ideas to try:

- Create a checklist for the student that contains the essential steps of the skill or strategy. Have the student adopt a routine of previewing the steps of the checklist just prior to the class or activity in which the student will need to use the strategy. (An eventual goal may be to have the student memorize the key steps of the strategy-perhaps by condensing those steps into an acronym or other memory technique.)
- A group instructional strategy that strengthens skill retention is for the teacher to open a class lesson with a brief review of a previously taught skill or concept. Kicking off the lesson with a quick review of previous content will prime your target student with the essential steps of the strategy precisely when he or she will need the information to apply to the current lesson. Your whole class will be more likely to retain past instructional material through this review.
- If your student has difficulty in recalling a strategy, don't be too quick to jump in with the answer. Instead, consider using 'partial prompts'. Partial prompts give your student hints about how to proceed in his or her problem solving without simply supplying the answer: They are instructional questions or directives that offer the student just enough information to recall the next step in the strategy or skill. Then the student is encouraged to continue with the assignment independently if possible. If a student is stuck on a long-division math computation problem, for instance, the teacher may say, "Point to the number that you will be dividing... Now point to the number that you will divide by... Tell me what the next step is that you will follow." Partial prompts require students to remain active participants in academic work, rather than allowing them to assume a posture of learned helplessness.

And, finally, don't overlook this simple tip: Ask the struggling student to 'think aloud' by stating what he or she remembers of the skill or strategy that should be used. You may be surprised to discover that the student is able to accurately recall most of the strategy and needs only minor teacher assistance to solve the problem or complete the assignment.

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3**PLANNING FOR INSTRUCTION****16****Sample Lesson Organizers for Differentiated Instruction****Student Profile**

Student Name _____ Grade _____ ID No. _____
 Address _____
 Parent/Guardian _____ Telephone Number _____
 Completed by _____ Title _____ Date _____
 School Name _____ Telephone Number _____
 School Contact Person _____
 Primary Disability _____ Secondary Disability _____
 Primary Language _____ Bilingual Instructional Category _____

STUDENT PROFILE AS INDICATED ON THE IEP

Strengths _____

Needs _____

Learning Style _____

Accommodations/Modifications Required _____

STANDARDIZED TEST INFORMATION

SUBJECT AREA	GRADE EQUIVALENT	TEST DATE
Reading Comp	_____	_____
Vocabulary	_____	_____
Math Comp	_____	_____
Math Application	_____	_____
Math Total	_____	_____
Other _____	_____	_____

SUPPORT SERVICES LISTED ON THE IEP

Medical Information _____

Assistive Technology _____

Additional Information _____

This form is designed to enhance communication between the regular and Special Education teachers, and elementary and high school teachers. It provides a brief profile of the student with disabilities in order to facilitate individualized instruction.

STRATEGIES • RESOURCES • LINKAGES

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Implementing Modifications by Charting Lessons

Teachers can keep notes for IEP's they've read and monitor how lesson aligns with modifications and goals listed in IEP.

MODIFICATIONS/ACCOMMODATIONS

G	Grading modified	CT	Computer/Technology
S	Seating	M	Alternate Materials
HW	Homework Modified/Reduced	OW	Oral Written Presentations
P	Preteaching	MS	Multisensory Techniques
R	Reteaching/Repetition	CST	Child Study Team Support
A	Assessment varied/simplified	PO	Parental Involvement
SG	Study Guide	B	Buddy system
V	Visuals	NT	Notetaking system
T	Extra time or wait time for tasks	LOV	Learning Objective Varied
BP	Behavior Plan	O+	Other modifications

Subject _____ Teachers _____

STUDENTS	MODIFICATIONS/ ACCOMMODATIONS	ASSESSMENT/DATES MASTERY LEVEL	COMMENTS

RELATED SERVICES:

3

PLANNING FOR INSTRUCTION

Implementing Modifications by Charting Lessons

SUBJECT: _____

LESSON: _____

OBJECTIVES: _____

STANDARDS: _____

STRENGTHS: _____

DIFFICULTIES: _____

CO-TEACHING

PERSON:	RESPONSIBILITY:

WHOLE GROUP ACTIVITY

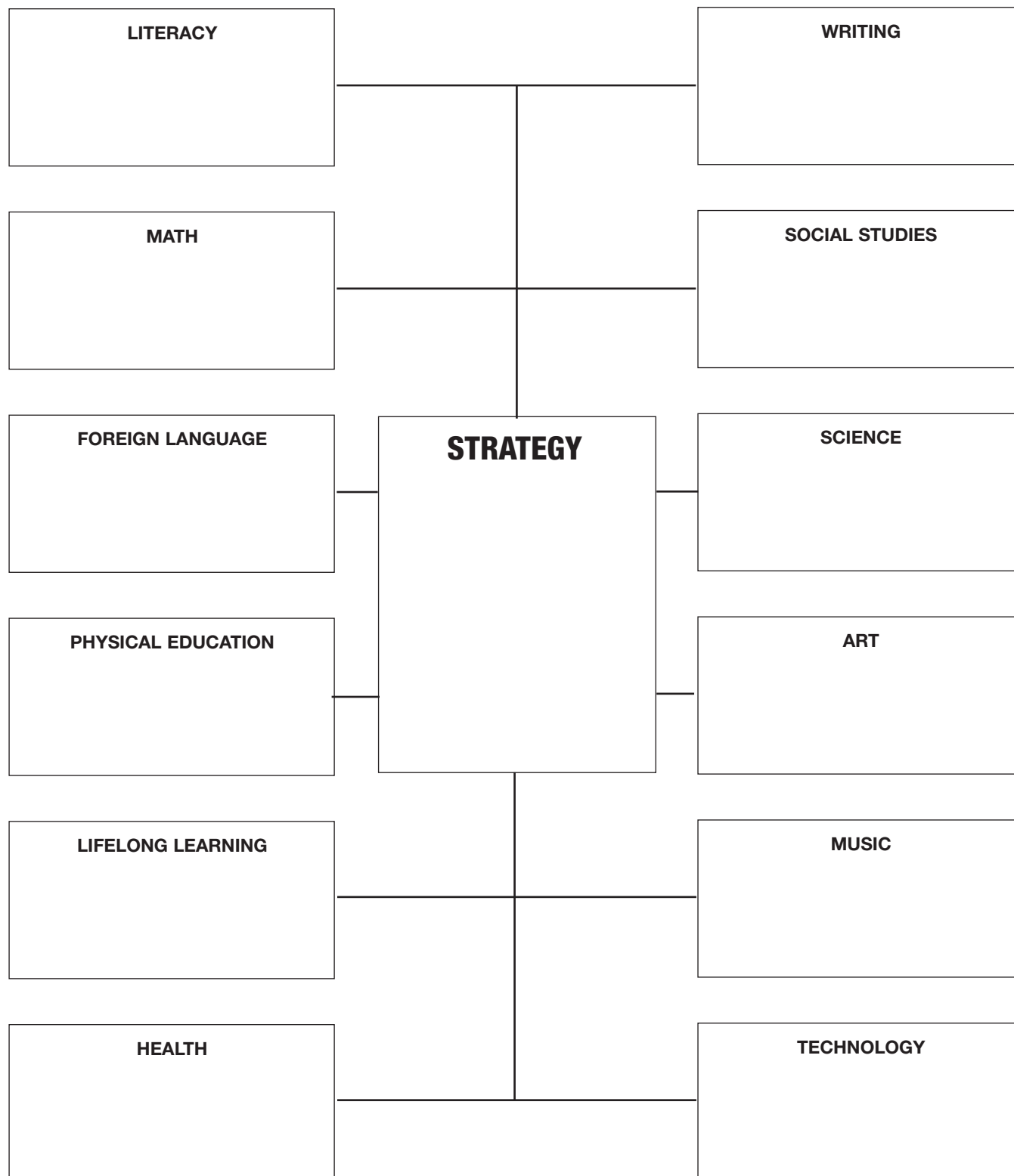
1. _____
2. _____
3. _____

SMALL GROUP INSTRUCTION

GROUP 1	GROUP 2	GROUP 3	GROUP 4
FOCUS:	FOCUS:	FOCUS:	FOCUS:
STUDENTS:	STUDENTS:	STUDENTS:	STUDENTS:
1. _____	1. _____	1. _____	1. _____
2. _____	2. _____	2. _____	2. _____
3. _____	3. _____	3. _____	3. _____
4. _____	4. _____	4. _____	4. _____
5. _____	5. _____	5. _____	5. _____
DIFFERENTIATED ACTIVITY:	DIFFERENTIATED ACTIVITY:	DIFFERENTIATED ACTIVITY:	DIFFERENTIATED ACTIVITY:
INDEPENDENT ACTIVITY:	INDEPENDENT ACTIVITY:	INDEPENDENT ACTIVITY:	INDEPENDENT ACTIVITY:

ASSESSMENT OR EVALUATION:

Making the Most of Each Strategy



Principles of Universal Design in Learning

To support recognition learning, provide multiple, flexible methods of presentation.

INSTRUCTIONAL DESIGNS TO SUPPORT PRINCIPLE:

- Provide multiple examples
- Highlight critical features
- Utilize multiple media and formats
- Support background context

EXAMPLES:

- Multiple versions of story
- Visual concept maps
- E-text with text-to-speech
- Online links to expert

To support strategic learning, provide multiple, flexible methods of expression and apprenticeship.

INSTRUCTIONAL DESIGNS TO SUPPORT PRINCIPLE:

- Provide models of skilled performance
- Practice with supports
- Give ongoing, relevant feedback
- Demonstrate skills

EXAMPLES:

- Teacher generated examples
- Talking word processor
- Links to peers
- PowerPoint, Concept mapping software

To support affective learning, provide multiple flexible options for engagement.

INSTRUCTIONAL DESIGNS TO SUPPORT PRINCIPLE:

- Give students choice of content and tools
- Adjust levels of support and challenge
- Give choice of rewards
- Allow choice of learning context

EXAMPLES:

- Selection of content for learning
- Templates supporting process
- Built-in structured peer feedback
- “Web Quest” designs

Flexible Grouping

Flexible grouping occurs when there is a whole group assessment or instruction initially. The students are divided into small groups by their need for review, reteaching, practice, or enrichment. Such grouping could be a single lesson or objective, a set of skills, a unit of study, or a major concept or theme. Students may rotate to areas or utilize a rotation of materials taken from folders or bins. Strategies for flexible grouping are essential. Learners are expected to interact and work together as they develop knowledge of new content. Teachers may conduct whole-class introductory discussions of content, big ideas followed by small group or paired work. Student groups may be coached from within or by the teacher to complete assigned tasks. Grouping of students is not fixed. As one foundation of differentiated instruction, grouping and regrouping must be a dynamic process, changing with the content, project, and on-going evaluations.

TEACHER-LED GROUPS

Teacher-led Groups are the most common configuration used in classrooms today. They include whole-class, small group, and individual instruction. Teacher-led groups are an effective and efficient way of introducing material, summing-up the conclusions made by individual groups, meeting the common needs of a large or small group, and providing individual attention or instruction.

■ **Whole-Class Instruction** – Whole-class instruction is often used to introduce new materials and strategies to the entire class. Working with the whole class to introduce new concepts can build common experiences and provide a shared basis for further exploration, problem solving and skill development. Whole-class instruction also can help identify student's prior knowledge and experiences that will affect new knowledge acquisition.

■ **Small-Group Instruction** – Small-group instruction is familiar to most teachers; it is an often-used strategy. Small groups can provide opportunities for working with students who have common needs, such as reinforcement or enrichment.

■ **Students Working Alone in Teacher-Directed Activities** – Working cooperatively is an important educational goal; however, students must learn to work independently. Students may be paired to share ideas, information, strategies for problem solving, research, fluency practice, or to make presentations. This strategy promotes active listening and individual approaches to problem solving.

STUDENT-LED GROUPS

Student-led groups can take many forms, but they all share a common feature—students control the group dynamics and maintain a voice in setting the agenda for the group to follow. Student-led groups provide opportunities for divergent thinking and encourage students to take responsibility for their own learning. One of the benefits of student-led groups is that they model “real life” adult situations in which people work from varying backgrounds and with different experiences, sharpening social skills and developing a sense of confidence in their own abilities. Group types and a sampling of activities are described below.

■ **Collaborative Groups** – The essence of collaborative learning is the team spirit that motivates students to contribute to the learning of others on the team. Because team success depends on individual learning, members share ideas and reinterpret instruction to help each other. In this environment, students convey to one another the idea that learning is valuable and fun.

Students in collaborative-learning groups can make predictions or estimations about a problem, share ideas or formulate questions. After working independently, group members might cooperate in composing either an oral solution or a written response. These groups prove particularly effective for open-ended problem-solving investigations. Collaborative groups come in all sizes and configurations, depending on the instructional goal to be achieved.

■ **Performance-Based Groups** – Sometimes groups of students with similar needs might benefit from additional support in the completion of a task. Unlike traditional ability groups, performance-based groups form for a short time and respond to the dynamic nature of learning. Performance-based groups are most effective when formed on the basis of a particular need rather than in response to predetermined performance levels. Performance-based groups provide a means for increasing student's access to a particular concept or skill. Suitable strategies for these groups include introducing language using concrete models, laying a concept game for skill practice, or practicing strategies. Some strategies for use with performance-based groups may include:

Group Study – Group study often occurs after a session of whole-group instruction. After the main concept is discussed as a class, students get into small groups of two to four to complete a cooperative assignment that reinforces, expands on, or tests their knowledge. Groups can brainstorm ideas or complete various explorations or investigations.

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PLANNING FOR INSTRUCTION

■ **Performance-Based Groups** *(continued)*

Interview for Options – After working individually on an investigation, group members take turns interviewing each other to determine how each person approached the problem. After they have all had a chance to share their thinking, the group can summarize what they learned from the interviews. Use of graphic organizers or posters can be helpful.

Student Dyads, or Pairs – Grouping students in pairs often forms the basis for peer and cross-age programs. Various strategies for use with student pairs include the following:

Partner Turns – Student are paired before a whole-class presentation is made. As you make your presentation, give pairs a chance to share ideas, information, and plans or strategies for problem solving. This strategy provides a good way to quickly reinforce active listening and individual approaches to problem solving.

Think, Pair, Share – After whole-class instruction, have individuals think about what strategies they would use for approaching the investigation. Students should write down their ideas. After a time, have pairs meet to share their ideas and strategies. This approach helps encourage divergent thinking and provides students with immediate feedback on their approaches to problem solving. As with any change, implementing flexible grouping requires a period of adjustment. But the results will be worth the effort!

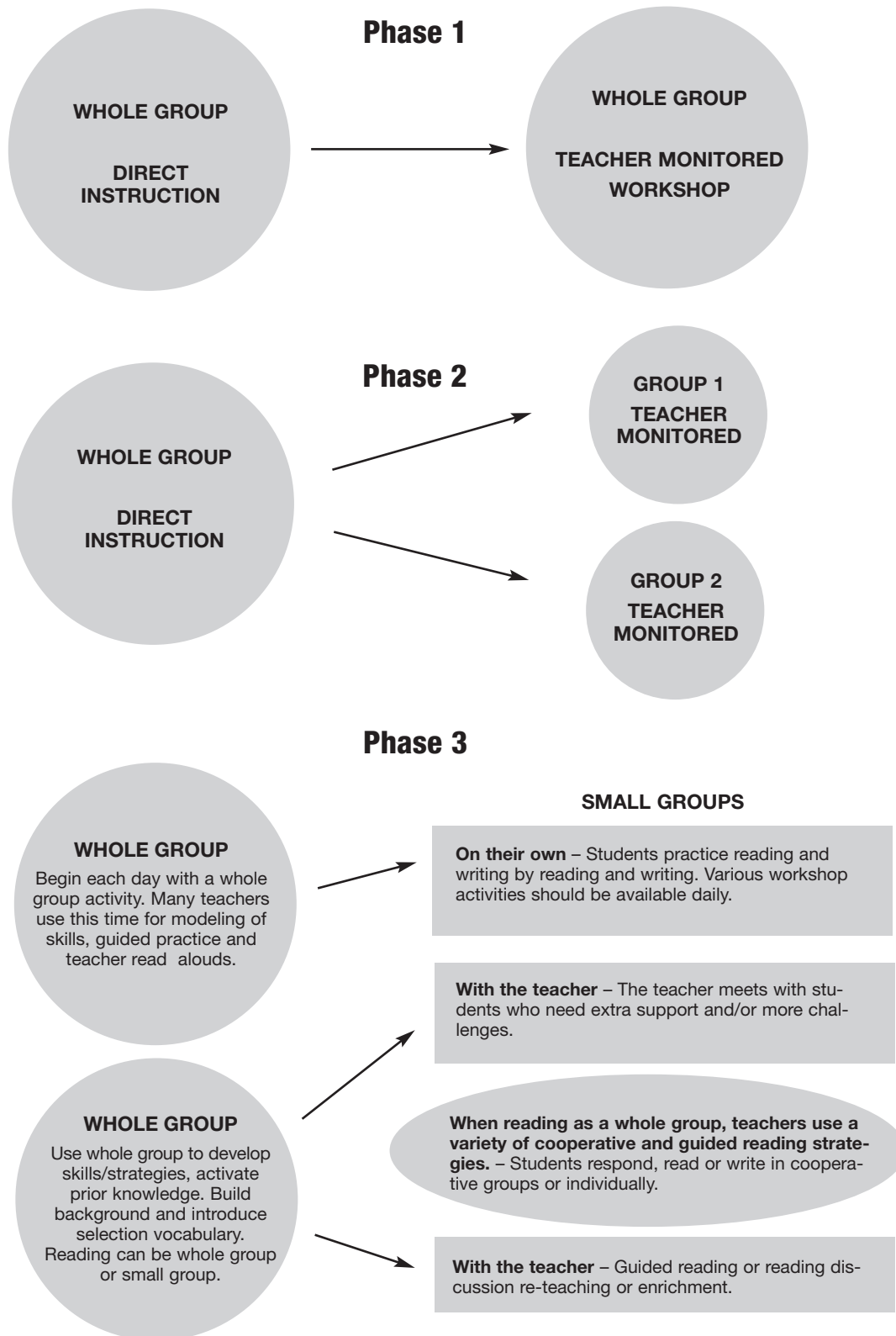
TEACHER-LED GROUPS

GROUPING OPTIONS	TEACHER'S ROLE	ACTIVITIES
Whole class/Small Groups	<ul style="list-style-type: none"> Explains procedures Provides instructional scaffold Provides explicit instruction Affirms student diversity 	<ul style="list-style-type: none"> Outlining day's agenda/schedule Giving an overview of concepts Sharing student work Presenting strategies Developing background knowledge
Individual	<ul style="list-style-type: none"> Guides individual development Encourages individual student interests 	<ul style="list-style-type: none"> Applying key concepts, strategies and skills Composing written responses Completing understanding Creating own investigations

STUDENT-LED GROUPS

Collaborative	<ul style="list-style-type: none"> Describes student's roles Describes student's interpersonal skills Encourages student interaction Monitors group effectiveness Guides understanding Affirms student diversity 	<ul style="list-style-type: none"> Organizing collaborative project Collaborating on projects Sharing group projects Discussing student's evaluation of group's success Applying key strategies and concepts Discussing different perspectives
Performance-Based	<ul style="list-style-type: none"> Identifies student's needs Provides instructional scaffold Provides explicit instruction 	<ul style="list-style-type: none"> Introducing new concepts Teaching specific concepts, strategies and skills
Dyad (Pairs)	<ul style="list-style-type: none"> Identifies student's interests or needs Models instructional strategies Guides understanding 	<ul style="list-style-type: none"> Assisting partners Tutoring peers Responding to peer writing Collaborating

Flexible Grouping Model



Co-Teaching Models

	COMPLEMENTARY TEACHING	STATION TEACHING	PARALLEL TEACHING	ALTERNATIVE TEACHING	SHARED TEACHING
MONITORING	<ul style="list-style-type: none"> Lead teacher models organization of the content. Lead teacher identifies skills and strategies needed for groups and individual students to complete the task of the lesson. Support teacher assists. 	<ul style="list-style-type: none"> Lead teacher and support teacher segment the lesson content. Lead teacher and support teacher divide the number of stations they are responsible for. Both teachers plan and organize their station activities with attention to possible group differences. 	<ul style="list-style-type: none"> Lead teacher and support teacher collaboratively organize the lesson content. Lead teacher and support teacher identify strategies needed for groups and individual students Lead teacher and sub-groups. 	<ul style="list-style-type: none"> Lead teacher and support teacher make decisions about the content and organization of the lesson. Lead teacher and support teacher determine the appropriate structures for alternative remedial or enrichment lessons that would promote student learning. 	<ul style="list-style-type: none"> Lead teacher and support teacher make decisions about the content and organization of the lesson. Lead teacher and support teacher teach simultaneously to whole class.
BENEFITS	<ul style="list-style-type: none"> Lead teacher conducts formal teaching. Support teacher teaches components of lessons with small groups of individuals. Support teacher provides content support to lead teacher's lesson. 	<ul style="list-style-type: none"> Lead teacher and support teacher segment learning to small groups or individuals at the stations they design. 	<ul style="list-style-type: none"> Lead teacher and support teacher independently deliver the lesson plan to each of the groups. Lead teacher and support teacher facilitate learning in their group. 	<ul style="list-style-type: none"> Lead teacher conducts formal teaching. Support teacher implements supplemental activities for the whole group, small groups or individuals before or after the formal lesson. 	<ul style="list-style-type: none"> Both lead and support teacher conduct formal teaching.
DESIGN	<ul style="list-style-type: none"> Lead teacher uses preassessment to determine students' need for support. Support teacher assesses students' skills and facilitates self-regulation during the lesson. Students use self-assessment as they request assistance during or after a formal lesson. 	<ul style="list-style-type: none"> Lead teacher and support teacher use pre-assessment to determine how students are selected for stations (e.g., skills, interests, random, etc.) Given the organizational structure and tasks of each station, assessment done by students can be used during the lesson. 	<ul style="list-style-type: none"> Lead teacher and support teacher monitor their own groups of students. Lead teacher and support teacher use post lesson reflection to share their expectations using the same lesson plan with different groups of students. 	<ul style="list-style-type: none"> Lead teacher and support teacher pre-assess the students to plan for alternative lessons. Lead teacher and support teacher assess the students during the formal lesson to identify students who would benefit from the alternative lessons. Student self-assessment and/or peer-assessment encourages students to articulate their need for alternative forms of instruction. 	<ul style="list-style-type: none"> Lead teacher and support teacher preassess the students. Lead teacher and support teacher assess the students during the formal lesson to identify students who would benefit from alternative lessons.
COMMUNICATION	<ul style="list-style-type: none"> Having two teachers to help individual students after the lesson is presented (individual guided practice). 	<ul style="list-style-type: none"> Facilitates small group learning and is responsive to individual needs. The notions of "mini-lesson", "mastery learning", "accelerated learning", and other ideas that teach to many achievement levels can be readily addressed in this mode. 	<ul style="list-style-type: none"> Parallel teaching is very helpful whenever we want to increase the likelihood of participation, publication, and sharing. Also, it allows us to work intensively with a small group of students. 	<ul style="list-style-type: none"> Allows us to use alternative methods to re-teach or extend the lesson up or down. This model reminds us that we may need more visual, auditory, tactile, kinesthetic support to successfully communicate certain skills, concepts and ideas. 	<ul style="list-style-type: none"> Team teaching is very powerful when the entire class is participating in a particular inquiry project like a thematic unit.

STRATEGIES • RESOURCES • LINKAGES

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Co-Teaching Strategies

STRATEGIES	TEACHER A	TEACHER B	PRO/CON
DUET MODEL	Both teachers plan and design instruction. Teachers take turns delivering various components of the lesson.		
LEAD AND SUPPORT MODEL	Primarily responsible for planning a unit of instruction.	Shares in delivery of instruction, classroom monitoring, and evaluation.	
SPEAK AND ADD/CHART MODEL	Primarily responsible for designing and delivery of instruction.	Adds and expands with questions, rephrasing, anecdotes; records info on charts, transparencies, or boards.	
SKILLS GROUP MODEL	Students are divided into 2-to-4 groups based on instructional need. Each teacher takes responsibility for half the group.		
STATION TEACHING MODEL	Responsible for overall instruction.	Teaches specific skills to a small group that they have not mastered.	
LEARNING STYLE	Both teachers share in the design and delivery of instruction. One teacher is primarily responsible for the auditory and visual instructions, the other for tactile and kinesthetic instruction.		
PARALLEL TEACHING MODEL	Both teachers plan and design instruction. The class splits into two groups. Each teacher takes a group for the entire lesson.		
COMPLEMENTARY INSTRUCTION MODEL	Primarily responsible for delivering core content.	Primarily responsible for delivering related instruction in the areas of study and survival skills.	
ADAPTING MODEL	Primarily responsible for planning and delivering a unit of instruction.	Determines and provides adaptations in the moment for students who are struggling with mastery.	

3

PLANNING FOR INSTRUCTION

Supportive and Complementary Instructional Strategies

SUPPORTIVE INSTRUCTION

The Special Education teacher supports and adapts instruction to meet the individual needs of the students.

The Special Education teacher assumes an active role in individualizing instruction while the classroom instruction is taking place. The support teacher reinforces and enriches the academic content.

Examples:

- Color coding the text to identify vocabulary, main ideas, dates, etc.
- Providing written directions as back-up for oral directions.
- Presenting directions in a very simplified format.
- Having the student repeat the directions to ensure understanding.
- Audio taping the lesson for reinforcement.
- Developing mnemonics as an aid to recall.
- Eliminating items on the worksheet, test, homework assignment, etc.
- Modifying items on the worksheet, test, homework assignment, etc.
- Reducing visual clutter on a page.
- Setting up learning stations in the classroom.
- Simplifying a concept by breaking it down into smaller units.
- Reading aloud the directions, test questions, items, etc., to the student.
- Recording answers for the student.
- Testing the student in a smaller group to lessen distractibility.
- Allowing the student to demonstrate mastery of skill in an alternative form.
- Modifying time conception of an assignment.
- Xeroxing teacher notes.
- Weighing elements of the grading system differently (i.e. class participation, homework, tests, seatwork, projects, etc.)
- Developing word banks, index files, flash cards.
- Providing supplementary materials for individualization of instruction.

COMPLEMENTARY INSTRUCTION

The Special Education teacher complements or enhances the existing structure.

The regular education teacher is responsible for teaching the content and the Special Education teacher instructs the students in strategies and techniques for achieving success in the content area (academic survival skills). The two lessons are taught simultaneously.

Examples:

- Developing an outline of the text and/or study guide for each chapter.
- Teaching the SQ3R strategy as part of a unit on study skill.
- Constructing schedules with students to help organize them.
- Teaching a unit on time management.
- Teaching a unit on test-taking skills.
- Teaching a unit on note-taking.
- Developing a communication system with parents for improving home study tasks.
- Developing a behavior modification program.
- Utilizing advanced organizers.
- Teaching mapping formats.
- Utilizing organizational charts.
- Teaching students to cue in on verbal or nonverbal key words.
- Providing study skill strategies that the students can use in various content areas.
- Teaching strategies for memorization.
- Teaching self-monitoring techniques.
- Teaching proofreading strategies.
- Developing skills in peer coaching.
- Teaching the students self-advocacy skills.
- Providing students with manipulatives to aid learning.
- Developing a study guide to accompany the textbook or test.
- Different test format.
- Spell Check
- Not Counting Spelling

STRATEGIES • RESOURCES • LINKAGES

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Bloom's Taxonomy

AREA OF TAXONOMY	DEFINITION	WHAT TEACHER DOES	WHAT STUDENT DOES	PROCESS VERBS	
KNOWLEDGE	Recall or recognition of specific information.	<ul style="list-style-type: none"> • Directs • Tells • Shows • Examines 	<ul style="list-style-type: none"> • Clarifies • Accepts • Harmonizes • Guides 	define list label record relate	repeat name memorize recall
COMPREHENSION	Understanding of information given.	<ul style="list-style-type: none"> • Demonstrates • Listens • Questions • Compares • Contrasts • Examines 	<ul style="list-style-type: none"> • Explains • Translates • Demonstrates • Interprets 	restate explain report discuss express review	describe identify tell recognize locate
APPLICATION	Using methods, concepts, principles, and theories in new situations.	<ul style="list-style-type: none"> • Shows • Facilitates • Observes • Criticizes 	<ul style="list-style-type: none"> • Solves problems • Demonstrates use of knowledge • Constructs 	translate employ practice interpret dramatize operate	apply use shop demonstrate illustrate schedule
ANALYSIS	Breaking information down into its elements.	<ul style="list-style-type: none"> • Probes • Guides • Observes • Acts as a resource 	<ul style="list-style-type: none"> • Discuss • Uncovers • Lists • Dissects 	distinguish test criticize question analyze differentiate compare inspect relate	calculate contract debate solve appraise experiment diagram inventory examine
SYNTHESIS	Putting together constituent elements or parts to form a whole requiring original creative thinking.	<ul style="list-style-type: none"> • Reflects • Extends • Analyzes • Evaluates 	<ul style="list-style-type: none"> • Discusses • Generalizes • Relates • Compares • Contrasts • Abstracts 	compose formulate construct manage design collect organize	propose assemble set up plan arrange create prepare
EVALUATION	Judging the values of ideas, materials, and methods by developing and applying standards and criteria.	<ul style="list-style-type: none"> • Clarifies • Accepts • Harmonizes • Guides 	<ul style="list-style-type: none"> • Judges • Disputes • Develops criteria 	judge compare choose predict rate select measure	evaluate score estimate appraise value assess

Classic Ideas to Diversify Classroom Instruction

ACCOMMODATING ALL STUDENTS: 'CLASSIC' IDEAS THAT TEACHERS CAN USE TO DIVERSIFY CLASSROOM INSTRUCTION

Teachers are required to accommodate a wide range of student abilities in their classrooms. Below are some 'classic' ideas that help to meet the unique learning needs of particular students within a busy, general-education classroom.

To communicate clearly with students:

- Post a daily classroom schedule. Preview the schedule with students and highlight academic and behavioral expectations for each activity. Leave the schedule up through the entire day.
- Speak in a clear voice that all students can hear easily ('strong teacher instructional signal'). Be sure that all students can see the board or projection screen without difficulty.
- Make eye contact with the student before giving directions. Have the student repeat directions back to you before beginning assignment.
- Use simple, clear language when communicating with the child.
- Keep instructions brief. Break multi-step directions into smaller subsets-and have the student complete one subset before advancing to another.
- Write assignments or complex directions on the board in addition to saying them.

To ensure student understanding of newly introduced academic material:

- Structure lessons so that they contain no more than one-quarter new material. (Students are most successful when they can 'anchor' new concepts to known information.)
- Match student's level of instruction to ability level to guarantee him or her a high rate of success (80% or greater).
- Use a 'think-aloud' approach: Talk through the steps of a problem-solving strategy as you teach it so that students can understand and internalize those steps. Then have them use the same 'think-aloud' approach as they work through the strategy, so that you can observe them and offer feedback.
- Give the student your master notes as a guide for improving or expanding his or her own notes. Or at the end of each class period, have the student compare his or her notes for thoroughness and accuracy against those of a classmate who takes thorough notes.

To promote student attention and motivation in group instruction:

- Seat the student at the front of the room, so that you face him or her as you teach (the teaching 'action zone').
- Use alerting cues to get the class's attention before giving a directive or assignment.
- Integrate learning into game-like tasks that allow students to win praise, points, privileges, or rewards; promote friendly competition between student teams; or use puzzles, riddles, or other novel vehicles to kindle student interest.
- Present instructional material in short sessions at a brisk pace.
- Require that students engage in some type of active responding to teacher instruction (e.g., students respond to teacher question in unison; students write down their response and then the teacher calls randomly on one student to share his or her answer; students break into small groups and use cooperative-learning strategies to solve a problem).

STRATEGIES • RESOURCES • LINKAGES

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To increase the student's persistence with independent academic tasks:

- Decrease assignment length (e.g., reduce number of items, shorten the required length of an essay).
- Break assignment into smaller, more manageable 'chunks'. Acknowledge, praise, or reward student for completion of each chunk.
- Explicitly recognize, praise, and reward the effort that a student puts into an assignment-no matter how imperfect the outcome. Students can become more motivated as they learn that effort (a factor is entirely within their control) can actually pay off!
- Have student monitor and chart own work completion as a motivation-builder.
- Provide the student with a copy of reading material (e.g., expository article) with main ideas already highlighted.
- Post a range of modest classroom 'work accommodations' that any student in the room can take advantage of (e.g., moving to a different part of the classroom to work; choosing which of several in-class assignments to do first; using a tape recorder to dictate the first draft of an essay, etc.). Encourage students to choose those accommodations that help them to work most productively.

To ensure that students who need help with independent classwork get it promptly:

- Create an easy-to-follow 'strategy' sheet that lays out academic problem-solving steps in a clear manner for student to refer to as needed. Give copies of this model to each student, and mount poster-size versions on classroom walls.
- Teach students acceptable, unobtrusive ways to get academic assistance from peers.
- Put together 'help-signal' program: when a student gets 'stuck' on seatwork, he or she displays help-signal (e.g., brightly colored index card) on desk, switches to other work until teacher is freed up to approach and provide assistance.
- Train classmates (or even older students from another classroom) to serve as floating 'peer-tutors' during seatwork, circulating around classroom to help students in difficulty.

To promote student retention of information that you have taught:

- Review previously taught material frequently ('distributed review & drill'). Come up with high-interest learning activities that allow the student to practice skills without drudgery.
- Train the student to 'help out' as a tutor in younger classrooms. The tutor can help children on academic material that the tutor has already mastered but should continue to practice (e.g., multiplication skills.)

To get the student to complete and bring in homework or to finish long-range assignments:

- Help the student to prioritize assignments by importance and deadline.
- Establish a homework contract with the student's parent (in coordination with the school, the parent records the student's completion of homework and provides appropriate daily and/or weekly rewards).
- Have the student write homework assignments into a daily planner. Check the planner at the end of each day to ensure that the student has written down all assignments accurately. Check also that the student has all necessary textbooks, materials, etc.
- Discuss with the parent the student's need for an organized study area at home, as well as the benefit of a fixed nightly schedule for completing homework.
- Conference with the student to break long-range assignments into shorter sub-tasks. Help the student to construct a timeline/schedule for completing these sub-tasks.

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Teaching Strategies to Promote Learning

Here are some teacher strategies that research indicates can be very effective in helping struggling learners to successfully master new **Teacher Strategies to Promote Learning**. As an instructor, you can use this ‘checklist’ of effective instructional practices in two important ways.

- First, you can evaluate your group instruction to verify that it includes each of these key educational components.
- Second, you can use these strategies as a starting point for making individual educational accommodations for children in your classroom with learning differences.

ACADEMIC SKILLS

1. Instructional Match. Ensure that students are being taught at the optimal instructional level. One that challenges them but provides enough success to keep these students confident and invested in learning.

2. Scaffolding. Provide ‘scaffolding’ support (individual instructional modifications) to students as necessary to help them to master a new task or keep up with more advanced learners. Examples of scaffolding strategies include reducing the number of problems assigned to a student, permitting the student to use technological aids (e.g., word processing software which predicts student word selection to reduce keyboarding), and using cooperative learning groups that pool the group’s knowledge to complete assignments.

3. Step-by-Step Strategies. For complex, conceptually difficult, or multi-step academic operations, break these operations down into simple steps. Teach students to use the steps. When students are just acquiring a skill, you may want to create a poster or handout for students to refer to that lists the main steps of strategies that they are to use.

4. Modeling and Demonstration. Model and demonstrate explicit strategies to students for learning academic material or completing assignments. Have them use these strategies under supervision until you are sure that students understand and can correctly use them.

5. Performance Feedback. Make sure that students who are mastering new academic skills have frequent opportunities to try these skills out with immediate corrective feedback and encouragement. Prompt guidance and feedback will prevent students from accidentally ‘learning’ how to perform a skill incorrectly!

6. Opportunities to Drill and Practice to Strengthen Fragile Skills. As students become more proficient in their new skills and can work independently, give them lots of opportunities to drill and practice to strengthen the skills. Whenever possible, make student practice sessions interesting by using game-like activities; coming up with real-world, applied assignments; or incorporating themes or topics that the student finds interesting.

7. Student ‘Talk-Through’ Activities. When students appear to have successfully learned a skill, set up activities for them to complete and ask the students to ‘talk’ you through the activity (i.e., announce each step that they are taking, describe their problem-solving strategies aloud, describe any road-blocks that they run into and tell you how they will go about solving them, etc.).

8. Periodic Review. Once students have mastered a particular academic skill, the instructor will quickly move them on to a more advanced learning objective. However, the teacher should make sure that students retain previously mastered academic skills by periodically having them review that material. Periodic review is often overlooked but is a powerful method for keeping students’ academic skills sharp.

9. Progress Monitoring. Teachers can verify that students are making appropriate learning progress only when they are able to measure that progress on a regular basis. The instructor may want to consider information from several assessment approaches to monitor student progress: e.g., curriculum-based assessment, accuracy and completeness of student assignments, student ‘talk-through’ demonstrations of problem-solving, etc.

Sample Strategies for Students with Difficulties

STUDENT DIFFICULTIES: Organizing written material

CONTENT

- Color coding information on index cards
- Writing information on post-its
- Highlighting important information
- Using index cards
- Using color coded folders or note-books for specific content
- Using a checklist for specific content

SETTING

TEACHER

- Divides students into small groups
- Pairs student with peer
- Assigns independent work with computer and provides pre-out-lined frames

INSTRUCTIONAL STRATEGIES

TEACHER

- Gives student an outline (framed) to fill in missing parts
- Teaches student to use graphic organizers
- Categorizes information into groups and summaries
- Models integrating highlighted points into summaries
- Teaches students to develop maps, charts and tables to draft information

STUDENT

- Uses left third of page to write down key words and phrases while reading material that will be summarized
- Uses notes on left side to summarize the reading material
- Student moves post-its around to organize notes in logic order

METHOD OR RESPONSE (ASSESSMENT)

TEACHER

- Monitors to assure notes area in logical order
- Provides an outline with major points and asks student to fill in details

STUDENT

- Writes beginning, middle, and end of essay on separate pieces of paper
- Illustrates first, then writes
- Breaks down essay questions into short answer questions
- Uses outlines or notes when presenting orally
- Uses student response cards
- Uses words banks

3**PLANNING FOR INSTRUCTION****STUDENT DIFFICULTIES: Difficulty completing assignments on time****CONTENT**

- Providing assignment book to student
- Providing long range planner for projects noting date and steps needed to finish projects
- Providing separate assignment book for each subject

SETTING**TEACHER**

- Using individual and small group instruction with peer support

INSTRUCTIONAL STRATEGIES**TEACHER**

- Sets up lesson plan book to meet individual needs of student
- Lets students know ahead of time what is expected of them
- Teaches time management
- Provides timer
- Checks on progress of assignments at shorter intervals

METHOD OR RESPONSE (ASSESSMENT)**TEACHER**

- Notifies student at intervals how much time is left
- Provides list of vocabulary words for student to use
- Allows student to turn in smaller sections of assignment

STUDENT DIFFICULTIES: Retention problems**CONTENT**

- Drawing student attention to key aspects of lesson
- Identifying information particularly important to student when reading individually or taking notes
- Supporting auditory content with visual information, e.g. pictures, drawing, charts, webs, etc.
- Rewriting passages on appropriate reading level
- Using vocabulary appropriate to student's comprehension level
- Adapting level of difficulty and length of task

SETTING**TEACHER**

- Reduces distracting stimuli in environment
- Seats student close to his/her desk
- Uses small cooperative groups

STRATEGIES • RESOURCES • LINKAGES

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STUDENT DIFFICULTIES: Retention problems *(continued)***INSTRUCTIONAL STRATEGIES****TEACHER**

- Repeats important points of lesson for student
- Provides student with graphic organizers, charts, or outlines to study during verbal instructional time
- Presents auditory information slowly
- Has student paraphrase information after hearing or reading it
- Has student tape-record information, explanations, directions so that he/she can listen to them again
- Has student retell a story plot, main events, characters, ending
- Has student write main ideas after reading or hearing them
- Provides student with more than one source of explanations or instructions
- Gives guiding questions prior to independent reading of content
- Monitor student's retention by asking questions about the content
- Uses different instructional modalities e.g., auditory, visual, kinesthetic
- Uses diagrams, pictures, gestures, and semantic webs when teaching lessons
- Ask student to take notes following organizational chart of: what, when, how, where, why, etc.
- Begins classes by reviewing concepts previously introduced
- Teaches student use of: mnemonic strategies, elaborative interrogation, use of acronyms, representational imagery, summarization
- Provides opportunities for active learning of concepts

METHOD OR RESPONSE (ASSESSMENT)**TEACHER**

- Repeats important points of lesson for student
- Provides student with graphic organizers, charts, or outlines to study during verbal instructional time
- Presents auditory information slowly
- Has student paraphrase information after hearing or reading it
- Has student tape record information, explanations, directions so that he/she can listen to them again
- Has student retell a story plot, main events, characters, ending
- Has student write main ideas after reading or hearing them
- Provides student with more than one source of explanations or instructions
- Gives guiding questions prior to independent reading of content
- Monitor student's retention by asking questions about the content
- Gives students more time to complete test or assignment

STUDENT DIFFICULTIES: Sequencing events**CONTENT**

- Providing markers to denote beginning, middle, and end in reading passages
- Making pauses to show transition in content

SETTING**TEACHER**

- Provides individual and small group instruction

3**PLANNING FOR INSTRUCTION****INSTRUCTIONAL STRATEGIES****TEACHER**

- Makes student practice sequential activities e.g., assembling equipment, combination lock, recipes, etc.
- Has student act as peer tutor teaching another student concepts he/she has learned
- After student reads history passages checks understanding of what happened first, next and last, makes time line
- Uses computer software to give student immediate feedback
- Has buddies list events of story on sentence strips in no particular order, and has student put them in appropriate order

STUDENT DIFFICULTIES: Difficulty concentrating**CONTENT**

- Highlighting important information student needs to focus on when reading

SETTING**TEACHER**

- Reduce distracting stimuli
- Places the student in the front row
- Uses carrels
- Uses FM Unit
- Uses visual/non verbal cue “to bring student back”
- Give student extra work space
- Seats students among well focused students
- Plays classical music before beginning lesson

INSTRUCTIONAL STRATEGIES**TEACHER**

- Makes student practice sequential activities e.g., assembling equipment, combination lock, recipes, etc.
- Has student act as peer tutor teaching another student concepts he/she has learned
- After student reads history passages checks understanding of what happened first, next and last, makes time line
- Uses computer software to give student immediate feedback
- Has buddies list events of story on sentence strips in no particular order, and has student put them in appropriate order

METHOD OR RESPONSE (ASSESSMENT)**TEACHER**

- Tests individually
- Gives more time to respond
- Gives student short assignment at first then increases length gradually
- Breaks test into smaller sections

STRATEGIES • RESOURCES • LINKAGES

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STUDENT DIFFICULTIES: Reading Comprehension**CONTENT**

- Using vocabulary appropriate to student's comprehension level
- Adapting level of difficulty and length of task
- Presenting information using organization chart that shows what, when, how, where, and why
- Relating personal experience

INSTRUCTIONAL STRATEGIES**TEACHER**

- Uses different instructional modalities e.g., auditory, visual, kinesthetic
- Uses diagrams, pictures, gestures, and semantic webs when teaching lessons
- Ask student to take notes following organizational chart of: what, when, how, where, why, etc.
- Begins classes by reviewing concepts previously introduced
- Teaches student use of: mnemonic strategies, elaborative interrogation, use of acronyms, representational imagery, summarization
- Provides opportunities for active of concepts
- Has student listen to audiotape while reading the materials
- Previews content before student begins to read
- Has student paraphrase materials, and Check for comprehension
- Uses dialogue or readers theater format with students reading assigned character parts
- Uses clustering and semantic webbing
- Uses SQ 3R technique (see appendix D)
- Uses graphic organizers, e.g., framed outlines, advance organizers, Venn diagrams, cluster maps, story maps, story frames, flow charts
- Teaches student to use context cues to identify meanings of unknown words and phrases
- Teaches student to use RAP technique
 - Read a paragraph/story
 - Ask yourself the main idea
 - Put it into your own words
- Uses cloze technique

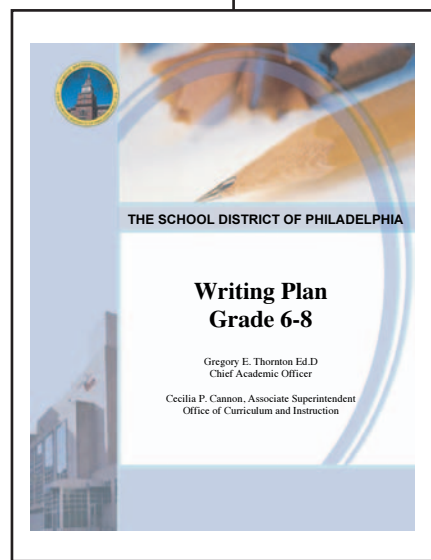
METHOD OR RESPONSE (ASSESSMENT)**TEACHER**

- Gives students more time to complete test or assignment
- Provides graphic organizer demonstrating steps to follow when answering questions
- Teaches student to develop semantic web to assist with answering questions
- Shortens test for student or provides a different format ie, uses cloze test instead of essay

Planning Strategies for Writing Using the Core Curriculum

Accommodations for Teaching Writing

PREWRITING	DRAFTING	REVISION	EDITING	PUBLISHING
<ul style="list-style-type: none"> • Graphic organizers • Webbing • Structured outline • Highlighting or color coding key topics • Idea banks • Provide a story opener • Brainstorming with a partner • Provide materials at lower skill level • Demonstrate with examples of work • Write ideas on sentence strips • Student organizes ideas first using illustration • Keep a reference check worksheet • Use visual as prompts • Put ideas on the computer • Provide extra time for prewriting activity • Write ending first and create a story around it 	<ul style="list-style-type: none"> • Use the Dyna Vox or other communication device • Dictate ideas into tape recorder or to another person • Use computer • Have key words available • Teacher monitors students production closely • Specify expected amount of work ahead of time • Shorten assignment • Use sentence strips, move them around • Graphic organizer such as paragraph centipede • Use model outline or template • (Research) Provide list and map showing location in library 	<ul style="list-style-type: none"> • Use a check list • Teacher/student conferencing • Provide a great deal of positive feedback • Cut and paste sentences and/or paragraphs • Read work to a peer • Graphically display beginning, middle and end • Listen to what you wrote 	<ul style="list-style-type: none"> • Use a Franklin or computer spell check • Have a list of correctly spelled vocabulary or commonly used words and synonyms available • Provide proofreading check list • Have punctuation chart with examples available • Use thesaurus or dictionary • Highlights areas for correction (noun/verb agreement, capitals, punctuation, etc.) 	<ul style="list-style-type: none"> • Use computer instead of handwriting • Use alternate methods of assessment dependent upon student characteristic and activity • Book reviewer alternatives • Summarize book by writing a news report as if the events actually took place • Write and perform songs about the book • Make shoe box film strips which illustrate and summarize books and put them in the shoe box (work like a filmstrip.)



Strategies for Teachers of Students with Diverse Learning Needs Using the School District of Philadelphia Core Curriculum

Students who are reluctant to attempt new tasks or have memory issues attempting independent writing assignments.

The strategies provided are generally for primary grades (K-2) but some can be employed with higher grades if students have demonstrated serious challenges.

PA Standards: 1.4 Types of Writing
1.5 Quality of Writing

Assessment Anchor: There are no specific writing anchors. If reading is connected to the writing then the reading anchor may be useful.

What Did You Do?

Used diverse strategies that allowed students to experience writing with prompts.

How Did You Do It?

1. First provide a mini lesson with one of the suggested strategies below.
2. During the mini lesson, which can be done either in the whole group or small group venue, the teacher demonstrates one of the prompts with a think aloud.
3. Make a wall chart of strategies that you can display. Continue to add strategies as the year progresses.

STRATEGIES

1. STICKER WRITING

- Purchase seasonal/general stickers (apples, animals, etc.)
- Let the students choose their sticker and stick it to their paper.
- They then write a story based on the sticker.
- As an added activity let them illustrate their story.

2. SENTENCES PROMPTS

- Sentences like the ones below can be used for story starters. Students who are having extreme difficulty in picking topics. Also, a good way to introduce random topics in standardized testing.

I can see a _____ Yesterday, I _____
I want to _____ This is a _____
My friend _____ I like to _____

As the student matures in writing skills, make the sentence prompts more rigorous.

- Put the story starters on popsicle sticks, index cards, or sentence strips for centers

- Sentence prompts can also be sentences from a story they are reading and the students finish the story.

3. WRITE THE ROOM

- Armed with clipboards and paper, the students walk around the room and write the words.
- Follow up activities:
 - a) When they are finished, they can read the words to another student.
 - b) Students may write a story using a specified number of words they found while reading the room.

4. USING A LETTER OF THE WEEK PICK A PERSON OR PLACE, TO WRITE ABOUT

Example for shared writing:

P (pick the principal of your school) and do a mini lesson.

Principal Great is the principal of our school. He is good principal and we like it when he visits our class. Sometimes, Mr. Great helps me with my work.

Students can then draw a picture of Principal Great, Principal Great working with us, or just a book that shows what kind of work Principal Great helps us with when he is in our room.

Why did you do it this way?

Some students are reluctant or unable to write stories without specific instructions. This technique will give them strategies to use when they are asked to do writing throughout the year.

These strategies can be particularly useful for students who have attention or memory challenges because the stickers and prompts serve as a reminder or guide during the writing process.

When do you suggest using this?

During guided reading, independent writing time, or homework.

What do you need to do this?

General – Writing Journals/Paper

Sticker Writing – stickers

Sentence Prompts – sentence strips, popsicle sticks, index cards

Write the room – clipboards

Who?

Co-teacher – Each teacher can work with small groups or individual students to work on specific independent strategies and writing skills.

Paraprofessionals – work with small groups or individuals as requested by the teacher.

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PLANNING FOR INSTRUCTION

Strategies for Teachers of Students with Diverse Learning Needs Using the School District of Philadelphia Core Curriculum

Students who are reluctant to write because they tend to be overly critical of self in school-related activities.

PA Standards: 1.4 Types of Writing
1.5 Quality of Writing

Assessment Anchor: There are no specific writing anchors. If reading is connected to the writing then the reading anchor may be useful.

What Did You Do?

Asked students to perform a variety of writing activities that would encourage their abilities and skills when asked to write for standardized tests or report card grades. Understanding that some students do not perform well because they are overly critical, it is important to develop techniques and strategies that give them confidence that they can perform most writing tasks.

How Did You Do It?

Conferenced with students who display a lack of confidence in performing an in-class writing task. Depending on the level of maturity, students will give you some indication of what their concerns are. From there, the teachers will determine which strategies will best suit the students. Some of the reasons may be a fear of making mistakes or lack of success in other writing. Below are some strategies to take when confronting these issues:

A. Fear of making mistakes

1. Explain to the student that you are looking for best effort – not perfection – and that will look differently from student to student.
2. Reinforce that everyone makes mistakes.
3. Reinforce the student for accepting errors that he/she makes.
4. Develop a clear understanding of the writing process:
 - Prewriting strategies
 - Draft writing
 - Editing
 - Final copy

B. Lack of success in previous writing assignments:

Use cooperative learning strategies for writing assignments so that the students will gain confidence in their writing ability. Listed are some strategies that can be used.

Team Jigsaw

Assign each student in a team one fourth of a page to read from any text (for example, a social studies text), or one fourth of a topic to investigate or memorize. Each student completes his or her assignment and then teaches the others or helps to put together a team product by contributing a piece of the puzzle.

Writearound

For creative writing or summarization, give a sentence starter (for example: If you give an elephant a cookie, he's going to ask for...). Ask all students in each team to finish that sentence. Then, they pass their paper to the right, read the one they received, and add a sentence to that one. After a few rounds, four great stories or summaries emerge. Give children time to add a conclusion and/or edit their favorite one to share with the class.

Numbered Heads Together

Ask students to number off in their teams from one to four. Announce a question and a time limit. Students put their heads together to come up with an answer. Call a number and ask all students with that number to stand and answer the question. Recognize correct responses and elaborate through rich discussions.

Roundrobin

Present a category (such as “Names of Mammals”) for discussion. Have students take turns going around the group and naming items that fit the category.

Roundtable

Present a category (such as words that begin with “b”). Have students take turns writing one word at a time.

Why did you do it this way?

To allow students to build confidence in their writing ability.

When do you suggest using this?

Anytime the core curriculum presents an opportunity for students to develop their writing skills.

STRATEGIES • RESOURCES • LINKAGES

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Adapting Curriculum and Instruction in Inclusive Classrooms

Quick Grid Planning Sheet

STUDENT LEARNING TARGETS AND ADAPTATIONS

Student	Kimberly Jones
Planning Team	Student Support Team - Sue Stevens, Jan Ryan, Bob Wells, Jan Byrd
Today's Date	September 10, 2006
Grade	4
Implementation Dates	September – November
Review Date	December 1, 2006

TARGET SKILLS	ACTIVITY/ CLASS	ADAPTATIONS/ MATERIALS	SUPPORT PERSON(S)
Target Skills for across the school day 1. Be in class on time 2. Follow school rules 3. Participate in group activities 4. Have necessary materials 5. Greet peers at various times 6. Use materials appropriately 7. Move in environments independently	All Day	personal schedule picture communication book adapted eating utensils arrange classroom for wheelchair accessibility	teacher peer teaching assistant speech/language therapist
1. Use computer (reading software) 2. Use tape recorder 3. Select book, look at independently 4. Listen to story, retell story 5. Learn five spelling words, use in sentences	Reading Language Arts	tape recorder headphones stories on tape computer software books/magazines	peer teacher speech/language therapist
1. Use calculator 2. Use computer and math software 3. Solve single digit problems 4. Answer questions in class 5. Identify and add coins	Math	calculator computer, software coins	peer teacher
1. Participate in cooperative groups 2. Answer questions in class 3. Do experiments 4. Anatomy: name parts of the body 5. Nutrition: develop menu of healthy foods	Science	pictures and labels sample menus	peer teaching assistant

Adapted from: York, Doyle, Kronberg (1992)

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PLANNING FOR INSTRUCTION

Group Learning Style Profile

Group _____

Teacher _____ Date _____

*Check the behaviors that you observe the student exhibiting frequently.***Visual**

- ☐ Taking copious notes
- ☐ Drawing or doodling
- ☐ Wanting to look at the pictures accompanying text
- ☐ Needing eye contact to listen well
- ☐ Choosing visual tasks such as reading
- ☐ Closely examining objects and pictures
- ☐ Commenting on the visual aspects of something

Auditory

- ☐ Choosing to listen to audiotapes
- ☐ Following verbal directions while not appearing to be listening
- ☐ Showing preference for music or singing
- ☐ Showing an interest in oral discussion
- ☐ Reading aloud to self
- ☐ Sounding out words
- ☐ Talking to self

Tactile

- ☐ Touching objects on shelves
- ☐ Fiddling with items in desk
- ☐ Carrying small objects around in hand
- ☐ Choosing to work with manipulatives whenever possible
- ☐ Grabbing items
- ☐ Playing with pencils and pens

Kinesthetic

- ☐ Walking around the room
- ☐ Standing while working at desk
- ☐ Jumping out of seat
- ☐ Using body movements for expression
- ☐ Enjoying physical education and other movement opportunities
- ☐ Volunteering to demonstrate or run errands
- ☐ Acting and playing roles

Group Learning Style Profile

Group _____

Teacher _____ Date _____

*Write the names of students in the quadrant which
most represents their dominant learning style.*

Visual _____**Auditory** _____**Tactile** _____**Kinesthetic** _____

3**PLANNING FOR INSTRUCTION****Standards-Based Strategies for Groups**

Student Name _____ Grade _____ Date _____

Teacher(s) _____

GROUP INFORMATION

Areas of Strength	Learning Styles	Areas of Need

STANDARDS OF FOCUS

CONTENT AREA

CONTENT AREA

Standard	Standard
Supportive Strategies	Supportive Strategies

EVALUATION PLAN

Process	Date(s)	Person(s) Responsible

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Accommodation Strategy Sheet

Student _____

Teacher _____

Nine weeks (circle one) 1 2 3 4 5 6 7 8 9

The following accommodations highlighted below were used to ensure your child's successful performance on the learning activities/assignments in the General Education classroom.

ACCOMMODATIONS OF METHODS AND MATERIALS

- ☐ Provide support and cueing system
- ☐ Use mnemonic devices
- ☐ Use visual and graphic representations
- ☐ Provide written notes and outlines
- ☐ Highlight important concepts
- ☐ Repeat key material
- ☐ Increase hands-on or concrete learning experiences
- ☐ Use alternative methods of providing information
- ☐ Breaking lesson into smaller segments
- ☐ Allowing use of tape recorders or devices

☐ Other: _____

ACCOMMODATIONS TO THE LEARNING ENVIRONMENT

- ☐ Modify the physical setting
- ☐ Use study carrels or proximity seating
- ☐ Modify grouping arrangements
- ☐ Provide guidance and assistance on tasks
- ☐ Use small group instruction
- ☐ Provide peer tutoring
- ☐ Modify classroom management procedures
- ☐ Use specialized behavior management procedures
- ☐ Implement daily or weekly reporting to parents
- ☐ Use checklists, notebooks, or other on-task aide
- ☐ Use time specific assignments

☐ Other: _____

ACCOMMODATIONS OF ASSIGNMENTS AND ASSESSMENTS

- ☐ Provide assistance and support in advance
- ☐ Provide on-going coaching and feedback
- ☐ Allow oral responses
- ☐ Divide worksheets into segments
- ☐ Use assistive technology
- ☐ Increase or decrease the amount of practice
- ☐ Provide extra time to complete assignments or tests
- ☐ Test orally
- ☐ Allow alternate formats and response modes
- ☐ Allow recorder or word processor
- ☐ Use blocked assignments on worksheets
- ☐ Use folders for storing assignments
- ☐ Use alternatives for written assignments
- ☐ Modify homework assignments
- ☐ Break up test administration to shorter sessions
- ☐ Allow writing on test (versus separate sheet)

☐ Other: _____

Dear Parent: Please detach and return this portion to homeroom teacher after signing

I have received a copy of my child's accommodations checklist and understand that his/her grade for this nine weeks is based on his/her performance with these instructional accommodations being made. These accommodations are over and above those available to General Education students.

STUDENT NAME _____

DATE _____

PARENT/GUARDIAN (PRINT) _____